

REQUEST FOR PROPOSALS

PROVIDING ADVANCED METERING INFRASTRUCTURE (AMI), METERS, AND SYSTEM INSTALLATION



Solicitation

Providing Advanced Metering Infrastructure (AMI), meters, and system installation

Proposal Submission: February 4, 2021

Proposal Due Time: 11:00 A.M. CST

Proposal Opening: 12:00 P.M. CST

Sewerage and Water Board of New Orleans

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**Sewerage and Water Board of New Orleans
Advertisement
Request for Proposals
Providing Advanced Metering Infrastructure (AMI), Meters, And System Installation**

The Sewerage and Water Board of New Orleans (SWBNO) herein referred to as the “Board” intends to acquire an advanced metering infrastructure system and related products, software and services (collectively, the “System”), for all of its approximately 144,000 water meters. The Board provides clean drinking water to the entirety of the City of New Orleans, Louisiana, which has a population of 393,292 residents (according to the 2017 US Census Bureau). The Board is soliciting proposals from qualified vendors to provide a System.

SWBNO will not accept proposals submitted by fax. All proposals **must be received** by the SWBNO on or before the proposal delivery due date. SWBNO will not accept proposals delivered after the deadline. SWBNO will not credit delivery claims not clearly documented by original receipt.

A **mandatory** pre-proposal conference for this RFP will be held on **January 5, 2022** at 10:00 a.m. CST via Microsoft Teams.

Join on your computer or mobile app

[Click here to join the meeting](#)

Or call in (audio only) [+1 504-224-8698](#)

Phone Conference ID: 395 315 069#

Copies of the solicitation and related information are available from SWBNO’s website at https://www2.swbno.org/business_bidspecifications.asp The right to reject any and all proposals is reserved by SWBNO.

SWBNO also uses LaPAC, the state’s online electronic bid posting and notification system, in addition to its standard means of advertising this requirement.

<https://wwwcfprd.doa.louisiana.gov/OSP/LaPAC/dspBid.cfm?search=department&term=181>

Inquiries and/or Requests for Clarification are due to SWBNO Erin Weaver, Purchasing Agent, **on Wednesday, January 7, 2022, not later than 5:00 p.m.** via email to eweaver@swbno.org.

Proposals are due on **Friday, February 4, 2022 at 11:00 a.m.** local time at

The Sewerage and Water Board of New Orleans

Attn: Procurement Dept – Erin Weaver

625 St. Joseph St., Room 133

New Orleans, Louisiana 70165

Proposal Bid Opening will be **Friday, February 4, 2022 at 12:00 pm CST** via Microsoft Teams:

Join on your computer or mobile app

[Click here to join the meeting](#)

Or call in (audio only)

[+1 504-224-8698,,516162251#](#) United States, New Orleans

Phone Conference ID: 516 162 251#

LATE PROPOSALS WILL NOT BE ACCEPTED

REQUEST FOR PROPOSALS & INSTRUCTIONS

1 Request for Proposals & Instructions

1.1. Background

The Sewerage and Water Board of New Orleans (SWBNO) herein referred to as the “Board” intends to acquire an advanced metering infrastructure system and related products, software and services (collectively, the “System”), for all of its approximately 144,000 water meters. The Board is soliciting proposals from qualified vendors to provide a System. The basic components of the System sought by The Board include the following:

- Water meters equipped with AMI meter interface units (MIUs) to replace all existing residential water meters.
- AMI-compatible registers to retrofit MIUs on large meters.
- Installation of new meters, retrofit registers (if applicable), and MIUs.
- An AMI network to transport meter readings, alerts/alarms and other information collected and transmitted by the MIUs to the AMI Head-end Software (HES).
- AMI HES, Meter Data Management Software (MDMS) and Customer Portal to collect, store, manage, report and present the meter data collected through the AMI network to the Board and its customers.
- The design, installation and testing of information interfaces between the AMI system’s software components and the Board’s customer information system (CIS).
- Handheld devices and software necessary to program and/or initialize the MIUs and collect installation data.
- All related documentation, including technical manuals and operating procedures.
- Training of the Board’s employees in MIU installation, maintenance, diagnosis and troubleshooting, as well as system use, operation and maintenance.
- Shipping and managing the inventory of AMI equipment during the course of project deployment.
- Where appropriate, installation of fixed data collection units, including the communications links between those collection units and the HES.
- Provision of all necessary radio licenses, firmware, third party software or operating systems to ensure a complete and working system.
- Satisfactory testing of all software, hardware, and procedures prior to the deployment of the system.
- Coordination, scheduling, communications and documentation of all installation services.
- Project management to ensure all products and services are coordinated.
- Disposal of old meter reading equipment including touchpads and AMI MIUs, as appropriate.

- Salvage of old meters and meter box lids, as appropriate.

Alternate items – The Board wishes to consider the following alternate items:

- AMI-compatible lids for meter boxes, or the modification of existing lids
- AMI-compatible registers to be retrofit to some existing large meters.
- Operation and maintenance of the AMI network (if Board-owned).
- Static meters for commercial and/or residential meters.
- Remote disconnect/connect devices for a portion of the service area.
- Distribution leak detection sensors and software as a service to provide analysis and reporting capabilities.

Selection of a Proposer under this RFP does not commit the Board to procuring any services pursuant to this RFP.

The Board provides clean drinking water to the entirety of the City of New Orleans, Louisiana, which has a population of 393,292 residents (according to the 2017 US Census Bureau). To provide drinking water, The Board utilizes approximately 1,850 miles of waterline serving approximately 142,850 service connections and meters for residential, commercial, industrial and landscape customers. Please refer to the table below for current meter by size numbers (approximate).

Meter Size (in inches)	Number of Meters
5/8"	115,000
3/4"	9,900
1"	12,250
1 ½"	2,000
2"	2,850
3"	150
4"	950
6"	550
8"	200
10"	50

Please refer to the below tables for additional meter installation details.

Small and Medium Meter (5/8" - 2") Locations	Number of Meters (%)
Indoors	<1%
Outdoor Restricted	<1%
Outdoor Accessible	99%
Confined Space	<1%
Large Meter Locations (2" <)	Number of Meters (%)
Indoors	5%
Behind Locked Gates	12%
Backyards	83%
Confined Space	77%

Meter Box Sizes, Installations	Number of Meter Boxes (%)
12.5" diameter – in Grass, Dirt	70 %
12.5" diameter - Concrete, Asphalt	30%
23.25" - Grass, Dirt	35%
23.25" - Concrete, Asphalt	65%

Currently, the utility reads water meters manually on a monthly basis. According to a recent water audit, approximately 20% of customer bills are estimated due to lack of meter access. The Board does not have an active meter change out program and meter readings are uploaded at the end of each day to The Board’s billing system: Cogsdale CSM, version 36.4. The Board is currently implementing upgrades to the Cogsdale system, though the version number is current.

A meter location file is included as Attachment “H”.

1.2. Instructions

Respondents shall submit Responses to the Director of Purchasing, 625 St. Joseph Street, Room 133, New Orleans, Louisiana 70165, 504-585-2124 no later than February 5, 2022 at 11:00 AM (CST) (the “Submission Deadline”) in a sealed envelope marked “Request for Proposal for “Providing Advanced Metering Infrastructure, Meters, And System Installation” bearing the Respondent’s name and address.

The response shall include one printed copy and an electronic flash drive with digital copies.

The Board will not accept Responses submitted by facsimile. All Responses must be received by the Board on or before the Submission Deadline. The Board will not accept Responses delivered after the Submission Deadline. The Board will not credit delivery claims not clearly documented by original receipt.

The response shall include an electronic flash drive in the following format.

Proposers must complete all required attachments and submit along with their electronic proposal submission. The Board prefers files in PDF format, marked:

1. **TechnicalProposal_ProposerName**
2. **Cost-Proposal_ProposerName**
3. **RequiredAttachments_ProposerName**

All proposals must have table of contents that are bookmarked and searchable.

Proposals should clearly demonstrate the Proposer’s qualifications to perform the needed services and attend all factors applicable in a professional relationship. Copies of the solicitation and related information are available from The Boards’s purchasing website <http://www.swbno.org>. Click on Bids and Business, then Advertisements and Specifications.

The Board will not accept proposals submitted by fax or mail. All proposals **must be received** by the Board on or before the Delivery Deadline. Proposals delivered after the said deadline will not be accepted.

1.3. Anticipated Proposal Timetable

Activity

Issue RFP	12/13/2021
Mandatory Virtual Pre-proposal Conference and Site Visit	1/5/2022 10AM CST
RFP Questions Due to the Board	1/7/2022 5PM CST
Proposals Due (Submission Deadline)	02/4/2022 11AM CST
Proposal Reading	02/4/2022 12PM CST
Qualified Proposers Notified	02/14/2022
Interview/Presentations	03/09/2022
Submit Best and Final Pricing	03/23/2022

Preferred Proposal Selected	03/30/2022
Finalize Scope of Work	05/11/2022
Board of Directors Approval	TBD
Award and Notice to Proceed	06/2022

If the Board identifies a likely service provider, it may negotiate an agreement with the highest evaluated Proposer as determined by the Selection Committee and fix the relationship by Professional Services Agreement. The agreement will contain the standard provisions shown in Attachment “D” and the “Disadvantaged Business Enterprise” (“DBE”) provisions shown in Attachment “C.”

A DBE goal of **7 percent** (7%) has been established for this RFP. The Proposer shall agree to use its best efforts to assure that all Proposers comply with the factors set forth in the DBE Program, to meet the goal for DBE participation in the performance of this solicitation.

1.4. Pre-Proposal Conference

A **mandatory** pre-proposal conference for this RFP will be held on **January 5, 2022** at 10:00 a.m. CST via Microsoft Teams.

Join on your computer or mobile app

[Click here to join the meeting](#)

Or call in (audio only) +1 504-224-8698

Phone Conference ID: 395 315 069#

Representatives from the Board will be available for discussions at this meeting. The purpose of the pre-proposal conference is to provide assistance to interested contractors in the interpretation of the Request for Proposal (RFP), Sample Agreement, DBE requirements and other technical and contractual matters.

Nothing stated or discussed during the course of this Pre-Proposal Conference shall be considered to modify, alter or change the requirements of the RFP, unless it shall be subsequently incorporated into an addendum to the RFP. All questions asked during the pre-proposal conference deemed to be pertinent by the Board will be addressed in an Addendum following the pre-proposal conference.

By responding to this RFP, Proposer agrees to the Board’s required provisions as provided in Attachment “D” and therefore waives any future right to contest the required provisions.

1.5. Services Needed

See Attachment “A”.

1.6. Selection Committee

The Executive Director shall appoint a five (5) person selection committee pursuant to Policy 95 (the “Selection Committee”) for this solicitation made up of Board staff and external stakeholders with expertise in the applicable field to consist of:

- General Superintendent, or designee;
- Deputy Director or designee;
- Department Head requesting the service or designee
- Employee who will manage and monitor the contract and;
- An expert in the field as determined by the Executive Director.

The Board has also retained the services of a qualified technical advisor who will provide nonbinding analysis of each proposal and sit on the committee in a non-voting advisory capacity.

1.7. Selection

The Selection Committee shall first evaluate the proposals on the basis of criteria other than price. The members on the Selection Committee shall utilize consensus scoring and discuss each proposal to complete the numerical grading.

The Selection Committee will utilize consensus scoring to first evaluate and rank responsive RFP Responses on the criteria listed below and provide an assessment of that score. A Proposer may receive the maximum score, a portion of this score, or no score at all, depending upon the merit of its response, as judged by the Selection Committee in accordance with:

- financial data, Proposer’s references, Proposer’s experience and other data relating to the Proposer’s responsibility and qualifications to perform the Project satisfactorily. Proposers may be required to submit additional or supplemental information to the Board, if necessary, for the Board to determine whether the Proposer(s) meets all of the standards outlined.

1.8. Completeness of Answers

All questions and requests for specificity must be answered. All specifications incorporating “shall,” “must,” etc., are requirements, and failure to comply with these must be specifically noted as exceptions. All specifications incorporating “should,” “desires,” etc., are highly desirable features. In the case of a specific requirement not followed by a request for an explanation, Proposer must explicitly affirm that the system or component meets that requirement. Simply taking exception to a requirement without providing an explanation, and where appropriate alternative specifications and language, shall be deemed non-responsive, and may result in rejection of the proposal.

Requesting a discussion of a requirement or provision of this RFP without providing explicit alternative language may also be deemed non-responsive and may result in rejection of the proposal.

Proposers shall be required to submit, in writing, the names, addresses and telephone numbers of any proposed major subcontractors or equipment manufacturers, and to submit other material information relative to proposed major subcontractors or equipment manufacturers.

The Board’s evaluation committee will determine which Proposers are responsive to the material terms and conditions of the Request for Proposals. The Board will then determine who is technically, financially and otherwise responsible to perform the Project satisfactorily and who has the capacity to meet all other requirements of the proposed Project.

1.9. Minimum Qualifications

Proposer shall provide reference information as outlined in the table below, and fill out Attachment “E” Reference Tables and Attachment “F” AMI Project List, which provides the required documentation of minimum qualifications.

	Minimum Qualification	Required Documentation
Proposer	5 years water AMI experience	Complete list of water AMI projects covering past 5 years as per 1.12
Key Staff	3 years water AMI experience with at least one completed water AMI project of at least 75,000 meters	Key staff resumes including recent water AMI projects
AMI Technology (Network and MIUs)	One completed water AMI project in the last 3 years using the proposed network with at least 75,000 of the proposed MIUs	Verifiable project reference as per Section 1.11
Meters	One completed water AMI project in the last 3 years using at least 75,000 of the proposed residential meters	Verifiable project reference as per Section 1.11
Installation Company	One completed water AMI project in the last 3 years with at least 75,000 connected water AMI MIUs	Verifiable project reference as per Section 1.11

1.10. Evaluation Criteria

The Board reserves the right to reject any and all proposals. As part of the evaluation process, the Selection Committee will interview Proposer references and other parties to confirm Proposer’s performance on previous projects.

The Board reserves the right to terminate this process at any time, and no guarantee is expressed or implied that obligates The Board to contract for the proposed project. The Board will negotiate its agreement with the highest evaluated proposer, as determined by the Selection Committee.

Proposers shall be treated fairly and equally with respect to any opportunity for discussion and revision of their offer. To obtain the best and final value offers, revisions may be requested after submissions and before award of the Contract.

The evaluation criteria below will be used to determine which proposal is the most advantageous to the Board. Proposers that do not meet the minimum qualifications defined in section 1.9 will be eliminated from further consideration, as determined by the Selection Committee.

A list of qualified proposers will be invited to present their qualifications to and answer questions from the Selection Committee. The Selection Committee will review each qualified technical proposal then score by consensus based on the following criteria detailed in the table below. After the qualified technical proposals are scored, the Selection Committee will unseal the cost proposals and calculate the Value for Money (VFM) Ratio as defined below. The Board will use the VFM Ratio to rank offers based on technical score and proposed cost. The proposal with the highest VFM Ratio represents the best value. The following formula is used for the calculation:

$$\text{VFM Ratio} = \frac{\text{Total Technical Score}}{\text{Total Lifecycle Cost}}$$

Where:

Total Technical Score = Sum of proposal technical scores

Total Lifecycle Cost = Net Present Value (NPV) of [initial capital cost + 20 years of annual O&M]. In its life cycle cost evaluation, The Board will discount future costs at 4.5% per annum.

Points	Evaluation Criteria
5	Strength of Contractor: Contractor’s (and subcontractors’) financial strength, stability and track record. Experience in the industry as well as R&D for new and improved capabilities. Ability to support production schedules for proposed equipment.
15	Experience of Proposed Staff: Relevant, related experience of the Project Managers and staff proposed for this Project, including sub-contractors.
25	Current System Capabilities: The degree to which the proposed system addresses technical specifications, performance requirements, and desirable features, including enhanced functionality and security.
25	Software, Data Management, and Interfaces: The ability of the solution to provide data integrity, security, accessibility, flexibility, and interfaces

	to other enterprise systems. Capability for software and firmware upgrades to add new features and ensure longevity. Includes software lifecycle and interoperability to support third-party devices on the network.
20	Installation Management: Proposed procedures and policies for project management, risk management, QA/QC, security, safety, training of installers, customer contact, scheduling appointments, troubleshooting and problem solving. Ability to keep to schedule.
10	Risk Mitigation: Ability to deliver technology, overall assessment of risk to delivery and operations. Overall system performance guarantees. Protection in the event of excessive failures. How the Proposer will deliver maintenance and operational support, as well as training.
10	<p>DBE Participation: To ensure the full participation of DBE’s in all phases of SWBNO’s procurement activities, all Proposers at time of proposal submission shall complete and submit an Economically Disadvantaged Business Participation Summary Sheet. If a DBE Participation Summary Sheet is not submitted, it shall be determined that the proposer was non-responsive to the DBE provisions and the proposal will not be evaluated by the selection committee.</p> <p>(5 points) Proposal complies with contract DBE participation goal of 7% or will conduct good faith efforts to do so.</p> <p>(5 points) Proposal submitted a quality proposal for DBE Participation that includes innovative strategies and approaches to achieve and maintain compliance over the contract term, including firm’s past performance on meeting DBE goals, technical assistance and supportive services designed to increase participation and build capacity in the DBE community.</p>

1.11. References

Proposer shall provide reference information as outlined in the table below, which provides the required documentation of minimum qualifications identified in section 1.9. **Proposer’s must fill out the tables provided as Attachment “E”. Proposer’s must provide three references for each section (AMI Technology, Meters, Installation Company).**

1.12. AMI Project List

Proposer shall provide a list of **ALL** water AMI projects that have commenced or have been completed in the last 5 years. Proposer’s must fill out the table provided as Attachment F.

1.13. Price Proposal

Price proposals must be submitted in a separate file, Attachment “G”. A Proposer may receive the maximum points, a portion of this score, or no points at all, depending upon the value for money, as discussed in section 1.10.

For alternative proposals, such as an alternate technology or an AMI system based on collaboration with other area utilities, submit the technical and pricing information under separate covers, and these in a separate envelope as a stand-alone complete proposal.

Addenda, Questions and Interpretations: The Board reserves the right to cancel this RFP or to eliminate parts thereof, if it determines, in its sole discretion, that such cancellation or elimination is in the best interest of the Board.

The Board reserves the right to amend this RFP, by addenda, prior to the date set for receipt of the submission of proposals. Addenda or amendments will be posted on the Board’s website. Parties that registered to attend the Pre-Proposal Conference shall be notified of addenda by email; however, it shall be the Proposer’s responsibility to ascertain if addenda have been issued. All such addenda shall become part of the RFP and all Proposers shall be bound by such addenda. Addenda, including postponement of the date for receipt of proposals, may be issued up to 3 days prior to the date the proposals are due.

All questions by Proposer(s) as to the interpretations of the RFP must be received no later than January 7, 2022, 5pm CT in writing via email to: Erin Weaver, eweaver@swbno.org.

Proposing firms shall promptly notify The Board of any omission, ambiguity, inconsistency or error that they may discover upon examination of the RFP.

The Board will not be bound by any information, explanation, clarification, or any interpretation, oral or written, by whosoever made, that is not incorporated into an addendum to the RFP. No response will be made to inquiries received after the RFP Questions Deadline.

Any formal protest which is to be made by an aggrieved Proposer concerning the Proposal solicitation must be in accordance with the policies of The Board (Policy Memorandum No:95, Professional Services Procurement Policy) and submitted in writing to Procurement Director, Cashanna K Moses, cmoses@swbno.org.

1.14. Qualified Proposers

The Board at its sole discretion may recommend a selection of Proposers who meet the minimum requirements as described in section 1.9.

During the review of any proposal, the Selection Committee may:

- Conduct reference checks with any or all the references cited in a Proposal to verify any and all information, and rely on or consider any relevant information from such cited references in the evaluation of Proposals;
- Seek clarification of a Proposal from any or all Proposers and consider such supplementary information in the evaluation of Proposals;
- Request interviews/presentations with any, some or all Proposers or Team Members to clarify any questions or considerations based on the information included in Proposals during the evaluation process, and consider any supplementary information from interviews/presentations in the evaluation; and

- The Board reserves the right to exclude proposals to be non-responsive, and those that do not meet the minimum requirements.

1.15. Ownership

All proposals and/or documentation submitted therewith are Board property for all purposes. Proposers will clearly mark documents or information claimed exempt from public records disclosure and specifically justify the exemption. The Board will not credit any blanket exemption claims lacking specific justification. The Board does not guarantee the confidentiality of submissions.

1.16. Effect

This RFP and any related discussions or evaluations by anyone create no rights or obligations whatsoever. The Board may cancel or modify this solicitation at any time at will, with or without notice. The contract executed by The Board and the selected Proposer, if any, is the exclusive statement of rights and obligations extending from this solicitation.

1.17. Errors or Omissions

The Board will not be liable for any error in any proposal. Proposer will not be allowed to alter proposal documents after the deadline for proposal submission, except under the following condition: The Board reserves the right to make corrections or clarifications due to patent errors identified in proposals by the Board or the Proposer. The Board, at its option, has the right to require clarification or additional information from the Proposer.

1.18. Withdrawal

A Proposer may withdraw a proposal that has been submitted at any time up to the proposal closing date and time. To accomplish this, a written request signed by the authorized representative of the Proposer must be submitted to Purchasing.

1.19. Cost of Preparation

The Board is not liable for any costs incurred by prospective Proposers or Contractors prior to issuance of or entering into a Contract. Costs associated with developing the proposal, preparing for oral presentations, and any other expenses incurred by the Proposer in responding to the RFP are entirely the responsibility of the Proposer, and shall not be reimbursed in any manner by The Board.

1.20. Use of Subcontractors

Each Contractor shall serve as the single prime contractor for all work performed pursuant to its contract. That prime contractor shall be responsible for all deliverables referenced in this RFP. This general requirement notwithstanding, Proposers may enter into subcontractor arrangements. Proposers may submit a proposal in response to this RFP, which identifies subcontract(s) with others, provided that the prime contractor acknowledges total responsibility for the entire contract.

Further, each prime contractor shall ensure that all subcontractors comply with the Right to Audit requirements of this RFP.

All subcontractors intended to perform the work described in Scope of Services to be provided must be identified. All work not identified as being performed by a subcontractor shall be attributed to the work of the prime contractor. The identity of each proposed subcontractor must also be included on the Proposal Cover Sheet (RFP Attachment “B”). Any subcontractor arrangements other than those listed in the proposal shall require prior approval by the Board. Identify which subcontractors are classified as certified DBE vendors.

1.21. Subcontractor Insurance

The Contractor shall include all subcontractors as insureds under its policies or shall insure that all subcontractors satisfy the same insurance requirements stated herein for the contractor. Contractor and any subcontractor shall carry and maintain at least the minimum insurance as specified below until completion and acceptance of the work. Contractor shall not commence work under this contract until certificates of insurance have been approved by The Board Purchasing Department.

Insurance companies listed on certificates must have industry rating of A-, Class VI or higher, according to Best's Key Rating Guide. Contractor is responsible for assuring that its subcontractors meet these insurance requirements.

1.22. Indemnification

To the fullest extent permitted by law, the proposer shall be required to indemnify, hold forever harmless, and defend the Board, its officers, agents, employees, representatives and insurers from any and all claims, demands, suits, money judgments, costs and expenses arising out of any accident, injury or damage to, loss of property or life or personal injury, growing out of, resulting from, or by reason of any act or omission by the proposer, subcontractors, or any of their agents or employees, related to or arising out of this agreement.

The proposer shall indemnify and hold harmless the Board, its officers, directors, agents, representatives, insurers, and employees from and against any claims and liens for labor, services, or materials provided to the Board in connection with performance of work under this agreement.

Limitations by statute as to workers' compensation or any other benefits payable by or on behalf of the successful proposer to any injured party shall not limit the obligations for indemnification of the Board under the agreement.

1.23. Audit of Records

The Board or others so designated by The Board, or other lawful entity shall have the option to audit all accounts directly pertaining to the resulting contract for a period of five (5) years after project acceptance or as required by applicable local, state and federal law, rule or regulation. Records shall be made available during normal working hours for this purpose.

1.24. Right to Audit

The Contractor will submit to any Board audit, inspection, and review and, at the Board's request, will make available all documents relating or pertaining to this Contract maintained by or under the control of the Contractor, its employees, agents, assigns, successors and subcontractors, during normal business hours at the Contractor's office or place of business in Louisiana. If no

such location is available, the Contractor will make the documents available at a time and location that is convenient for the Board.

Administrative and financial records shall be made and kept by the contractor in accordance with generally accepted accounting principles and practices. Records shall include, but are not limited to, accounting records, daily reports, change order requests, correspondences and subcontract files (hard copies as well as computer readable data, if it can be made available). Records must be retained and made available upon request for a minimum of five (5) years following completion or formal acceptance of the contracted project.

The Contractor will abide by all provisions of City Code § 2-1120, including but not limited to City Code § 2-1120(12), which requires the Contractor to provide the Office of Inspector General with documents and information as requested. Failure to comply with such requests shall constitute a material breach of the Contract. The Contractor agrees that it is subject to the jurisdiction of the Orleans Parish Civil District Court for purposes of challenging a subpoena.

1.25. Appropriate Licensure

All Proposers shall have a Louisiana Public Works Contractors License, as well as have on staff a licensed Louisiana Master Plumber.

1.26. Point of Contact

All correspondence and other communications regarding this procurement should be directed to the attention of Erin Weaver, Purchasing Agent, 504-585-2125, eweaver@swbno.org.

Substantive questions must be submitted by Proposers in writing to the person at the e-address provided above no later than 5:00 pm Central Time on January 5, 2022.

Any request received after that time may not be reviewed for inclusion in this RFP. The request shall contain the requester's name, address, and telephone number.

The Purchasing Department will issue a response to any inquiry if it deems it necessary, by written addendum to the RFP, posted on the Board's website, and issued prior to the RFP's Delivery Deadline. The Proposers shall not rely on any representation, statement or explanation other than those made in this RFP or in any addenda issued. Where there appears to be a conflict between this RFP and any addendum issued, the last addendum issued will prevail.

From the time of advertising, and until the final award, there is a prohibition on communication by Proposers (or anyone on their behalf) with the Board's staff, Selection Committee members and elected officials. This does not apply to oral presentations before evaluation committees, contract negotiations, or communications at any time with any Board employee or elected official regarding matters not concerning this RFP.

Breaking the established prohibition on communication may result in a disqualification of the proposal.

1.27. Required Attachments:

Proposers are required to complete the following Attachments and submit along with their hard copy and electronic Proposal submission as outlined in section 1.2.

- Attachment “B” Proposal Cover Sheet
- Attachment “C” ECONOMICALLY DISADVANTAGED BUSINESS PARTICIPATION SUMMARY SHEET
- Attachment “E” Reference Tables
- Attachment “F” AMI Project List

- Attachment “G” Cost Proposal
- Attachment “J” Transmission Characteristics
- Attachment “K” Compatibility with Different Meter Registers
- Attachment “L” Convicted Felon Affidavit
- Attachment “M” Conflict of Interest Disclosure Affidavit
- Attachment “N” Non-Solicitation Affidavit

To achieve a uniform review process and obtain the maximum degree of comparability, it is required that the proposals be organized in the manner specified in the table below:

Required Element	Included
TechnicalProposal_ProposerName	
* Use Attachment “B” Proposal Cover Sheet	
* Table of Contents clearly identifying the materials by section, page number & tabs with search enabled	
CostProposal_ProposerName	
* Use Attachment “G” Cost Proposal	
RequiredAttachments_ProposerName	
* Use Attachment “C” Economically Disadvantaged Business Participation Summary Sheet (Along with signed correspondence from DBE)	
* Use Attachment “E” Reference Tables	
* Use Attachment “F” AMI Project List	
* Use Attachment “J” Transmission Characteristics	
* Use Attachment “K” Compatibility with Different Meter Registers	
* Use Attachment “L” Convicted Felon Affidavit	
* Use Attachment “M” Conflict of Interest Disclosure Affidavit	
* Use Attachment “N” Non-Solicitation Affidavit	

To be completed on Attachment B.

FAILURE TO COMPLETE THE REQUIRED ATTACHMENTS MAY RESULT IN THE DISQUALIFICATION OF A PROPOSAL.

1.28. Insurance

Contractor shall maintain at its own expense and in good standing, such insurance as will protect the Sewerage and Water Board of New Orleans (“Board”), the City of New Orleans, their officers, officials, employees, boards, commissions, and volunteers, and the Contractor itself, from and against any and all claims or damages to public or private property or personal injury, including

death, to employees or the public, which may arise from any operations under this contract or any of its subcontracts. The coverage shall contain no special limitations on the scope of protection afforded to the Board or the City. Both the Board and the City shall appear as "Additional Insured" on all Commercial General Liability and Business Automobile Insurance. Any failure to comply with reporting provisions of the policy shall not affect coverage provided to the Board and the City, their officers, officials, employees, boards and commissions, and volunteers. The Contractor's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.

If this transaction requires the Contractor or subcontractor's employees to enter the Board's facilities or job sites, a senior employee of the Contractor and/or any subcontractor will review the Board's Safety Orientation Notice (Notice), and will explain this Notice to every employee who will enter Board facilities. This Notice is included as a part of the specifications for this contract.

Contractor and its insurers shall agree to waive all rights of subrogation, except on their Professional Liability Policy, against the Board, the City, and their officers, officials, employees, boards and commissions, and volunteers for losses arising from work performed by the Contractor for the Board and the City. Each insurance policy required by this contract shall be endorsed to state that coverage shall not be suspended, voided or canceled by either party, or reduced in coverage or in limits except after thirty (30) days prior written notice by certified mail, return receipt requested, that has been given to the Risk Manager of the Board. In general, insurance is to be placed with insurers with a Best's rating of at least A- V, although this requirement may be reviewed and modified by the Risk Manager of the Board in the best interest of the Board. The Risk Manager may also consider performing such review upon written request from Contractor. Contractor shall furnish the Board with certificates of insurance affecting coverage required by this contract. The certificates for each insurance policy are to be signed by a person authorized by that insurer to bind coverage on its behalf.

The certificates of insurance are to be received and approved by the Risk Manager of the Board before work commences. In the event of a claim, Contractor shall make applicable insurance policies available for review by the Board. Contractor shall retain its rights to restrict disclosure of Contractor's proprietary information.

The following are the types of insurance policies and the minimum limits of insurance coverage which shall be maintained by Contractor during the entire term of the Contract:

- a. **WORKERS' COMPENSATION AND EMPLOYERS' LIABILITY INSURANCE**, as will protect it from claims under Workers' Compensation Laws. The Workers' Compensation section of the policy shall afford statutory limits and be in accordance with all Louisiana Workers' Compensation Statutes. The Employers' Liability limit shall not be less than \$3,000,000 each accident for bodily injury by accident and \$3,000,000 each employee/policy limit for bodily injury by disease. Whenever any vessel or floating equipment is involved, the insurance shall afford coverage under the Federal Longshoremen's and Harbor Workers' Act, and shall also include protection for injuries and/or death to Masters and Members of the crews of vessels with statutory limits in accordance with the Jones Act.
- b. **COMMERCIAL GENERAL LIABILITY INSURANCE**, with a limit of not less than \$10,000,000 each occurrence and \$20,000,000 general aggregate, including Explosion, Collapse,

and Underground Property Damage Hazards. The Products-Completed Operations aggregate limit shall not be less than \$5,000,000 each occurrence. The general aggregate limit shall apply separately to this project.

- c. BUSINESS AUTOMOBILE INSURANCE, which shall cover liability arising from any auto (including owned, hired, and non-owned vehicle). The limit of liability shall not be less than \$1,000,000 combined with each accident for all injuries, property damage, and/or death resulting from one occurrence.
- d. ERRORS AND OMISSIONS/PROFESSIONAL LIABILITY INSURANCE, whichever is applicable to the particular profession or service to be provided, with limit of not less than \$1,000,000 each Claim, with a \$2,000,000 annual aggregate, without any restrictive “negligent act, negligent error, or negligent omission” clause, and sufficient to protect the Contractor, the Board, and the City, for a five (5) year period from completion of this contract, against any and all claims which may arise from the Contractor’s negligent performance of work described herein.

In addition, Contractor shall be required to furnish to the Risk Manager of the Board all copies of investigative reports with regard to any and all claims filed with the Contractor and his insurance carriers relative to the contract, with the exception of claims filed against his Workers' Compensation Insurance. Such reports shall include date, location, and description of loss as well as amounts of settlements or judgments in order that annual aggregate limits may be monitored by the Board for Contractor's compliance with these specifications.

The furnishing of insurance as provided above shall not relieve Contractor of its responsibility for losses not covered by insurance. Prior to the signing of the contract, evidence of all such applicable insurance satisfactory to the Board shall be filed with the Risk Manager of the Board. All policies shall be in insurance companies authorized to do business in Louisiana and shall remain in full force and effect until the final completion of the work and acceptance thereof by the authority of the Board. Contractor and/or his insurer shall notify the Risk Manager of the Board at least thirty (30) days in advance of any insurance coverage to be canceled or of any insurance coverage that will expire. Contractor shall simultaneously furnish the Board evidence of new coverage to be effective the same day and hour of the expired or canceled coverage. In the event Contractor fails to submit this evidence of new coverage five (5) days prior to cancellation date or expiration date of any policy or policies, the Board will obtain the required coverage to become effective on date of cancellation or expiration of said policies. The cost of such new coverage shall be at the expense of Contractor and any expenditure incurred by the Board of this coverage will be deducted from any balance due to Contractor.

1.29. Retainage

An amount equal to five percent (5%) of the Contract Price shall be retained by the Board and shall be paid over by the Board to Contractor as the final installment of the Contract Price after the Board has conducted a final inspection and accepted the Work.

1.30. Financial Information

Proposer must provide a minimum of one of the following in support of the financial stability of the firm as a separate document:

a) A statement regarding the firm’s financial stability, including information as to any current or prior bankruptcy proceedings.

b) A Dun & Bradstreet (D&B) Supplier Evaluation Report (SER), or similar type of report. All costs associated with this report shall be borne by the Proposer.

c) A copy of a certified financial statement for each of the last three years prepared by an independent certified public accounting firm or Federal Tax Return for previous years.

If the Proposer is an incorporated subsidiary or joint venture, Proposer shall include relevant financial information of its parent companies.

1.31. Loss of Agreement and/or Inability to Fulfill Requirements

Proposer shall submit full details of all terminations for default, settlements to avoid litigation, or pending terminations experienced in the past five (5) years including the other party’s name, address, and telephone number. Termination for default is defined as notice to stop performance due to Proposer’s non-performance or poor performance, and the issue was either: (a) not litigated; or (b) litigated and such litigation determined Proposer to be in default. Proposer shall also present its position on the matter.

The Board shall evaluate the facts and at its sole discretion may reject the Proposer’s response if the facts discovered indicate that completion of an agreement resulting from this RFP may be jeopardized by selection of Proposer.

If Proposer has experienced no such settlement or termination for default in the past five (5) years, and has no pending terminations, it must affirmatively declare to be so.

1.32. Rejection of Proposals

The Board reserves the right to reject any and all responses to the RFP (with reasonable explanation) and/or to waive any informalities in evaluating the RFP responses if it deems this to be in the best interest of the Board, its customers, and the general public. The Board reserves the right to qualify Proposers as it deems in its best interest.

The Board will not award a contract to a Proposer who fails to furnish evidence satisfactory to the Board that it has the ability, equipment, and experience to furnish the kind and quality of materials and services required, that it has furnished materials and services of similar character and magnitude, and that it has sufficient capital and plant to enable it to prosecute this project successfully within the time limit given for this contract. Intending vendors who cannot fully satisfy these requirements are requested not to submit a proposal. Failure to qualify in this respect may be considered sufficient cause to reject any proposal whatsoever.

Additionally, the Board reserves the right to disqualify Proposers, before and after the Opening of Proposals, upon evidence of collusion with intent to defraud or other illegal practices upon the part of any Proposer(s).

1.33. Confidentiality

The Board is a public entity as defined by state law and, as such, it is subject to the Louisiana Public Records Law, under which Board records are public (unless otherwise declared by law to be confidential), subject to inspection and may be copied by any person. Any privileged or confidential information in the Proposer’s proposal shall be specifically identified as such by the Proposer. If any information is considered to be confidential, the Proposer shall agree to indemnify the Board for any and all attorney fees the Board may incur in defending the

withholding of such information. Should the Board receive a request for the release of any information in the Proposer’s proposal in accordance with the Public Records Law, the Board will review the Proposer’s proposal, giving consideration to the portions that the Proposer indicated contained trade secrets, privileged information, or confidential commercial or financial data, and may provide all information which is not properly deemed to be confidential. The Board will make a best effort to notify Proposer of any public records request before the release of such information. If, in the opinion of the Board’s legal counsel, the Board is nonetheless compelled to disclose any portion of such information to anyone or else stand liable for contempt or suffer censure or penalty, the Board may disclose such information without liability.

1.34. Disadvantaged Business Enterprise (DBE) Requirements:

In accordance with the adoption of Resolution R231-97, the Sewerage and Water Board of New Orleans has established a race and gender-neutral Disadvantaged Business Enterprise (DBE) Plan. The prime contractor shall be required to make a demonstrated good faith effort to award **(7%)** percent of the amount of the contract to certified disadvantaged business enterprises as service providers or suppliers performing commercial useful functions which are consistent with the services or supplies required on this contract. The percent participation having been determined for this specific contract by recommendation of the Staff Contract Review Committee (SCRC), which is comprised of Sewerage and Water Board staff members. This percentage requirement shall be considered an informality which is subject to modifications and may be waived or adjusted by the Sewerage and Water Board of New Orleans if the prime contractor, after having demonstrated a good faith effort, is unable to comply with the requirement.

Also see Article IX of Attachment “D”.

END OF DOCUMENT

ATTACHMENT “A”, TECHNICAL REQUIREMENTS

All questions and requests for specificity must be answered in accordance with AMI RFP Instructions. All specifications incorporating “shall,” “must,” etc., are requirements, and failure to comply with these must be specifically noted as exceptions. All specifications incorporating “should,” “desires,” etc., are highly desirable features. In the case of a specific requirement not followed by a request for an explanation, Proposer must explicitly affirm that the system or component meets that requirement. Simply taking exception to a requirement without providing an explanation, and where appropriate alternative specifications and language, shall be deemed non-responsive, and may result in rejection of the proposal.

Exceptions shall be listed in the following format: Exception No., RFP Section and Paragraph number, Page No., Exception and Explanation, Proposed Alternative Specification or Language.

Responses shall carry the title to the technical requirements topic. Answer questions specifically. Proposers are strongly advised to read through the entire RFP Technical Requirements before responding, to avoid repetition; if an answer has already been provided in response to an earlier question, make reference to it. Do not repeat text.

Terms & Abbreviations

The following terms and definitions are used herein:

AASHTO – American Association of State Highway and Transportation Officials

AMI Compatible Meter – A meter that requires a change of register to an encoder type register with a connector ready to connect to an MIU.

AMI Ready Meter – A meter that has a register and connector ready to connect to an MIU. All AMI-Ready meter registers will be of the dial position or electronic encoder type.

ANSI – American National Standards Institute

ASCII – American Standard Code for Information Interchange, character encoding standard

ASQ – American Society for Quality

AWWA – American Water Works Association

CIS – Customer Information System

DCU – Data Collection Unit

FM – Factory Mutual (Global), a testing laboratory

FDCU – Fixed Network Data Collection Unit

FTP – File Transfer Protocol

GIS – Geographical Information System

GPS – Global Positioning System

HES – Head End System

HMRU – Handheld Meter Reading Unit

Installation Period – The period that begins on the Commencement Date stated in The Board’s issued Notice to Proceed and ends upon the certification of Substantial Completion.

IEC – International Electrotechnical Commission

IP Code – Ingress protection code (referring to enclosure protection and resistance to ingress of foreign solids or liquids)

LAN – Local Area Network

MDCU – Mobile Data Collection Unit

MDMS - Meter Data Management System

MIU – Meter Interface Unit (Endpoint)

NSF – National Sanitation Foundation

ODBC – Open Database Connectivity, a standard application programming interface

OSHA – Occupational Safety and Health Administration

PFPTU – Portable Field Programming and Testing Unit

PSI – Pounds per Square Inch

Release – A group of accounts determined by The Board released to the Proposer for installations. The accounts may be grouped by meter reading route, zip code, or other group based on geographic proximity and logistics.

SAML – Security Assertion Markup Language

SaaS – Software as a Service

SQL – Structured Query Language

UL – Underwriters Laboratory

WAN – Wide Area Network

XML – eXtensible Markup Language, used to store and transport data

2 Proposer and Subcontractors

2.1. Proposer Team

Provide a description of the Proposer’s team for this project. Proposer shall identify its subcontractors and their respective responsibility and the product(s) and/or service(s) they will deliver.

2.2. Proposer Team Company’s Background

Provide company backgrounds for itself and its subcontractors including all company’s water AMI experience.

2.3. Project Management & Key Personnel

Proposer will designate a Project Manager, who shall be responsible for managing the overall project on on behalf of the Proposer. The Project Manager should be onsite throughout the duration of the project. The Project Manager shall be experienced in managing water AMI projects. The Board shall approve the Project Manager or a change in the Project Manager.

Proposer will designate a Contract Manager, who shall have the authority to handle and resolve any disputes or contract issues with The Board. Disputes that cannot be resolved at this level must be resolved in accordance with the dispute section of this Contract.

Proposer will designate an Installation Manager, who shall be responsible for managing the entire installation project on a day-to-day basis on behalf of the Proposer and for seeing that all installations are carried out in a professional manner and in compliance with the procedures required by the AMI system manufacturer, The Board, and all other applicable local, state, and federal regulations. The Installation Manager should be onsite continuously throughout the duration of the project, except for holidays and vacations, during which the Proposer shall provide a qualified substitute. The Installation Manager shall be experienced in supervising water meter installation contracts, and familiar with applicable regulations and safe and proper installation procedures. The Board shall approve the Installation Manager or a change in the Installation Manager. Successful Proposer shall submit résumé and references of candidate(s) for Installation Manager.

Proposer must demonstrate the aptitude of Project Manager, Contract Manager, Installation Manager and key personnel (such as team or functional group leads) within their team. Proposer shall submit résumé and references of candidate(s) for Project Manager, Contract Manager, Installation Manager, and key personnel.

2.4. Proposer Staff

All of Proposer’s employees or subcontractors shall be fully trained by the Proposer in the removal of existing meters and the installation of new meters and MIUs. They shall also be trained in retrofitting newer meters as requested by The Board with AMI-compatible registers and MIUs, regardless of size. Proposer’s employees or subcontractors are not permitted to engage any Board customer in an argumentative way. Should those conditions evolve, Proposer’s employee shall immediately call a Board Field Representative to handle the situation. The Board reserves the right to require Proposer to retrain, reassign, or remove from the project any employee or subcontractor who fails to perform in a workmanlike manner. All of Proposer’s employees or subcontractors shall follow The Board’s safety and work standards policies.

Proposer shall engage by employment or subcontract at least one person at all times who shall maintain a valid and current Louisiana Master Plumber’s License. More than one licensed plumber shall be provided by the Proposer if the work volume warrants it. This/these person(s) shall be responsible for correcting any problems or damage to plumbing occasioned by the changing of meters or registers or the installation of the AMI equipment under this contract. Proposer shall provide references for each such person. The Board reserves the right to approve licensed plumbers for work on this project. Indicate compliance or explain the exception to the requirements.

Provide a proposed table of organization for the project. This shall include an orginazational chart with clearly defined roles and responsibilities for all key personnel and groups.

3 Project Schedule

The Board’s preference is an expeditious deployment of the AMI system to accelerate benefits realization and reduce the length of time operating two meter reading systems. The Board’s ideal timeline would be a 24-36 month project but the Board will consider all timelines provided by Proposers.

Proposer shall provide a high level project schedule with descriptions of each of the main phases of their project schedule with proposed milestones and timing.

Proposer may provide an optional compressed schedule as an alternative

4 Overall System Characteristics

The Board recognizes that AMI system features, characteristics, and performance result from the interaction of system components, and are to be addressed in this section. Proposer shall address individual component requirements and characteristics in response to the appropriate sections below.

4.1. System Overview

Provide an overview of the proposed AMI system detailing the different components of the solution: the water meters, AMI meter interface units, AMI network, AMI software applications, software implementation, training, support and field installation.

4.2. System Architecture

Provide a schematic depicting the system’s components and configuration. Provide a brief overview of the architecture and normal functioning of the system.

4.3. Read Success Rate

The data collection network shall be sufficient to obtain:

- At least one meter-register reading within a three-day interval from at least 98.5% of all meters on which the system is installed;
- At least 95.0% percent of all readings taken hourly or at more frequent intervals daily.

Meters with MIUs from which transmissions are blocked by readily identifiable temporary physical barriers beyond the control of The Board or Proposer are not included in the calculation of these success rates.

Within the requirements above, meters from which readings are not received shall not be geographically clustered.

Indicate compliance or explain the exception to the requirement.

Describe how network performance is tracked and reported.

4.4. Network Design and Coverage

The data collection network shall be designed to provide 100% coverage of The Board’s existing customer meters.

Indicate compliance or explain the exception to the requirement.

4.5. Meter Reading Interval

Indicate the default interval at which the MIU interrogates the meter (e.g., once per hour), and whether the interval can be changed for individual meters or a selected group of MIUs at the same time. If so, indicate the settable range of this interval. Describe the procedure required to change the interval and reset it. Indicate if changing the interval can be accomplished over-the-air from the HES.

If changing the interval will change the expected MIU battery life, provide specific parameters or examples (e.g., “15-minute interval will reduce expected battery life by X”).

4.6. Transmitting Interval

Indicate the default interval for transmitting readings from the MIU (e.g., once per day), and whether the interval can be changed. If so, indicate the settable range of this interval. Describe the procedure required to change the interval and reset it. If changing the interval will change the expected MIU battery life, provide specific parameters or examples (e.g., “4-hour interval will reduce expected battery life by X”).

Indicate how many full meter register readings and how many increment count reads are transmitted by the MIU at one time.

Describe how missing reads may be recovered/retransmitted from the MIU, including automatically backfilling missing interval data.

4.7. Elapsed Time (Latency)

Indicate the longest possible elapsed time from a when a meter is read by the MIU to when that meter reading is available at the AMI HES. (For example, if the meter is read every hour and the data is transmitted every 4 hours to a data collector, and every hour to the HES, then the longest elapsed time would be 6 hours.)

4.8. Read on Demand

Indicate if the system can obtain a real-time read on demand “over-the-air” from the MIU/meter by sending the MIU a signal. Indicate the expected time interval between a user’s on-demand reading request and the response.

4.9. Hard-to-Read Meters

Indicate how the system will obtain readings from meters in basements, ravines, vaults, and other transmission constraining settings. Proposer’s approach may include the use of repeaters, remote antennas, other MIUs, slower transmission rates, etc.

4.10. Time Synchronization and System Commands

Indicate if meter readings from MIUs are time-synchronized (e.g., meters are all read at the top of the hour). If so, explain how this is achieved and the clock in the MIU is set. Indicate the accuracy of the synchronization (e.g., +/-15 seconds).

In addition to time-synchronization, describe other commands or information that may be sent to the MIU from the HES or data collection unit in the course of the normal operation and maintenance of the system.

4.11. Radio Communication Band and Licenses

Indicate what radio frequencies are used for interactions between the MIUs and DCUs. Indicate what FCC license(s), if any, the system will require. Include the cost of licenses in the price schedule as part of the Price Proposal.

Indicate the expected length of time to acquire such licenses. Proposer shall be responsible for obtaining all necessary licenses on behalf of The Board and in The Board’s name. Local frequency licenses shall be assigned The Board.

For national frequencies, The Board must be provided an irrevocable right to use the license for its System, so long as the system is in service. Indicate the separate charges, if any, for this right in the pricing proposal.

Indicate compliance or explain the exception to the requirement.

4.12. Protection from Interference

Describe procedures that will be used to regularly check for, identify and remove interlopers on its licensed frequency(ies) or overpowered signals on unlicensed frequencies. Indicate who will be responsible for this effort. If The Board, describe provisions offered by Proposer or its system to assist in this effort. If Proposer, indicate the length of time such protection will be offered in association with this proposal/contract.

4.13. Data Transmission Integrity and Security

Describe measures, such as encryption, error checking and retransmission, transmission of prior reads, etc., used to ensure the accuracy, integrity and security of data transmitted between the MIU and the HES.

Describe any security certifications currently held related to the proposed solution.

Indicate the frequency of and type of security audits and penetration tests conducted by the Proposer on the system.

4.14. Tamper Detection

Provide a list of the tamper conditions that will be provided to the system operator (e.g., Missing MIU, cut wire, meter register separation, tilting of meter, empty pipe). For each, indicate whether the alarm is transmitted instantly or with the next MIU transmission. Indicate the number of times or over what period of time a tamper indication will be provided to the system operator before it is automatically cancelled. Indicate whether the tamper indication can or must be reset or reprogrammed by the system operator or field service technician, and how this is accomplished.

4.15. Leak and High Flow Detection

Briefly describe the system’s approach to detecting (a) continuous flow (that is, consecutive non-zero intervals), (b) low flow leaks (many but not all consecutive intervals non-zero), and (c) abnormally high flow (“broken pipe”). Indicate if the threshold levels for reporting of these anomalies are definable by The Board, and if so, for individual customers or groups of meters.

4.16. Questionable Reads and Rollovers

Describe system capabilities to validate meter readings for reasonableness, such as unusually high or low readings. Describe how system handles potential meter rollovers. (If these functions are provided by the MDMS, so indicate and include response with that section.)

4.17. Other Detection Features

List other conditions (for example, reverse flow) the system can detect. Describe how these are accomplished, and how they are reported.

4.18. Additional Features

Describe any additional current capabilities of the proposed system not already described above, such as remote shut-off or turn-on, pressure monitoring, temperature monitoring, chemical concentration monitoring, smart city applications, etc. List specific third-party sensors or controllers that are supported (such as acoustic leak detection devices) and their capabilities.

Describe the system’s ability to add instrumentation (pressure, temperature, chemical, leak, etc.) and to collect distribution system performance information and transmit the information from such MIUs. Indicate whether additional software would be required for any additional feature listed.

4.19. Planned/Future Capability

Indicate any planned future capabilities for the equipment being proposed, the anticipated development and availability schedule, and the expected procedures for upgrading The Board’s system, if applicable. Include a product roadmap of planned future capabilities.

4.20. Component Firmware

Indicate the number of firmware releases over the past 12 months for each system component and provide firmware release notes.

Proposer shall provide any available upgrades or patches to MIU, DCU, repeater and other collection network component firmware for a minimum of 15 years, at no additional cost beyond annual maintenance fees for this equipment.

Indicate compliance or explain the exception to the requirement.

Indicate if and how firmware patches or upgrades would be applied to each system component.

4.21. Manufacturing Facilities

List the manufacturing facility, facility location (country and state/province), ISO9000 or equivalent certifications for each manufacturing facilities.

5 AMI Network Propagation Study

Provide a description of the AMI network propagation study conducted for the proposed AMI system.

Provide the results of the propagation including the following information:

1. Network propagation coverage maps including meter and network infrastructure locations;
2. Number and types of network devices needed;
3. Redundancy details;
4. Confirm the proposed network meets the Read Rate Success specified in Section 4.3;
5. Confirm the proposed network covers 100% of the City’s meters as specified in Section 4.4.

If the proposed network uses cellular for MIU connectivity, Proposer shall provide a coverage map from the corresponding carrier or perform a drive-by study to develop and provide a coverage map.

6 Water Meters

6.1. General Meter Requirements

The Board expects the manufacturer of meters submitted as part of the proposal to submit its meters to a vigorous quality control and testing procedure before shipping. All meter accuracy tests shall be conducted in accordance with AWWA test methods and meter standards. The manufacturer shall furnish to The Board an electronic copy of the test results for each meter shipped. Specific information contained within the test results shall include the manufacturer serial number, flow rates, results of each flow rate test, the size of the meters being tested, the model number, the date, and the tester. Equipment shall be subjected to inspection to ensure compliance with the specifications. Shipments of equipment shall be subject to sampling (according to ANSI/ASQ Z1.4) and testing for compliance with specifications. Shipments failing the sampling and testing protocol shall be rejected in their entirety and returned to the supplier. Any individual pieces of material which fail inspection shall also be rejected and returned to the supplier. All freight costs and any other costs incurred by the rejection will be borne by the supplier.

Meters shall be guaranteed to operate under a working pressure of 150 psi without leakage or damage to any part.

All meters shall be provided with strainers in accordance with A.W.W.A. specifications

Fire Service meters and strainers shall have the Underwriter's Laboratories, Inc. (UL), and Factory Mutual (FM) approval for use on fire lines.

The manufacturers shall guarantee the entire meter, including the register for a period of 15 years from the date of shipment against all defects in material and workmanship. Any other guarantee by the manufacturer shall be stated in its proposal.

A sample shall be provided to the Sewerage and Water Board's Meter Shop (8800 S. Claiborne Ave, New Orleans, La 70118) once the contract is awarded.

The following documents in effect on the date of this RFP, form a part of these requirements to the extent specified herein:

- American National Standards Institute (ANSI) B1.20.1 “Pipe Threads”
- ANSI B1.20.1 “connections” and B.16.1 “Cast Iron Flanges”
- AWWA C7xx series, as applicable
- NSF 61 lead standard and ASTM B-62

Indicate compliance or explain the exception to the requirements.

6.2. Meter Serial Numbers and Labeling

The manufacturer's serial number shall be stamped on the main case of all meters and shall be clearly visible when viewed from above. The serial number shall consist of all numeric digits. All meters shall have stamped or cast on them the size and model. The direction of the flow through the meter shall be properly indicated. The serial number should also be provided on two bar code labels attached to the meter, one of which shall be removed for transfer to a paper record. The Board prefers that the serial number include digits representing the year of manufacture. The Board ID number shall be stamped or engraved under the meter lid.

Individual shipping containers (if applicable) shall be marked to identify contents and quantity. The Board desires that this information also be in the form of bar codes for scanning. Meter shipments shall be accompanied by a computer file of the meter serial numbers for The Board's database.

Indicate compliance or explain the exception to the requirements.

6.3. Meter Registers

Meter registers should have a flip cap to prevent dirt from interfering with the visual inspection of the register, its ID number, its indicators and other information.

Indicate the number of transmitted digits. Registers should report in 10 gallon increments (at a minimum), and a transmitted resolution of 1 gallon for all meters less than 3".

The register and wire connection shall be waterproof and corrosion proof. Meters that are not factory potted to transmitters shall be provided with waterproof connectors on a 5-foot three-conductor 18-gauge cable potted to the meter register.

Only factory permanently sealed train and register assemblies constructed of corrosion resistant material such as stainless steel, nonferrous alloys of suitable plastic material will be accepted. Sealed register shall be a separate meter part and removal of which shall not necessitate the removal of any identification number.

Registers shall be tamper-proof and shall not be readily removable in the field without the use of special tools.

Indicate if meter uses a battery and if low battery alarm can be transmitted through the MIU and how long is this alarm available before meter fails to fully function.

Indicate compliance or explain the exception to the requirements.

6.4. ID Numbers and Labeling

Each encoder register shall have a unique identification number with a minimum of 8 digits that will be transmitted electronically when the meter is interrogated. For new meters, this number shall be the same as the number stamped into the meter base. This register number shall also be visually readable on the register display or the cap. The Board prefers that this number be permanently stamped into the cap. The register should be shipped with an attached bar code corresponding to the register number.

Indicate compliance or explain the exception to the requirement.

6.5. Small (5/8"-2") Meters

The Board prefers a brass/stainless steel meter body. If a fully composite meter is proposed, describe the approach to minimize the risk of cross threading.

The Board would like to compare prices for both positive displacement and static meters. Proposer shall provide responses and prices for each type separately, if available.

The end connections of any 5/8" and 3/4", 1" meter shall be straight threads respectively, and conforming to American Standard pipe thread (ASAB2.1)

The end connection of any 1" and 2" meter shall be female. The shaft must be made of stainless steel. Proposer shall also provide pricing for remote disconnect meters, if available.

6.6. Compound Meters

Compound meters shall be designed for easy removal of all interior parts without disturbing any connections to the pipeline.

All compound meters shall be furnished with flanges on both ends. Flanges shall be of round type, faced and drilled.

Indicate compliance or explain the exception to the requirements.

6.7. Turbine Meters

Indicate whether proposed meters are Class I or Class II.

All meters shall be furnished with round flanges on both ends.

Indicate compliance or explain the exception to the requirement.

6.8. Excessive Failures

An "Excessive Failure" means the failure of two percent (2%) or more installed meters within any rolling twelve (12) month period. An Excessive Failure shall not include any meters that are outside the

applicable warranty period at the time of failure. In the event of an Excessive Failure, The Board shall promptly notify Proposer. Upon receipt of such notice, Proposer will develop a plan to eliminate the problem in all continuing production and to correct the problem in all affected meters that are covered by warranty. If the plan requires that the affected meters be de-installed for repair or replacement, then Proposer will, at its expense, (a) provide qualified field labor to de-install defective and accessible meters that are exhibiting failure in excess of the Excessive Failure threshold and install conforming replacements, or (b) reimburse The Board’s actual, documented and necessary costs of performing such work using its own resources in the form of a credit against amounts due by The Board. Indicate compliance or explain the exception to the requirement.

7 Meter Interface Unit (MIU)

If Proposer is proposing more than one version of the MIU (e.g., one with more advanced features or memory and one with less, single-port versus multi-port, etc.), Proposer must provide responses to the requirements in this section for each version for those features that are different, clearly specifying which version they apply to. Price differences between versions shall be clearly indicated in the Price Proposal.

7.1. Specifications and Physical Characteristics

Provide specifications of the proposed MIU(s), including physical characteristics and dimensions. Indicate environmental tolerances, including temperature and humidity ranges. Indicate if there are different models of MIUs for indoor, outdoor wall-mounted, and vault installations. The Board prefers a single model with appropriate mounting brackets for different situations.

Describe features of the MIU that prevent corrosion or degradation of mechanical or electrical performance (e.g., encapsulation or coating). The MIU shall be provided in a waterproof casing rated IP67 or better (submersion up to 1 meter of depth) in accordance with the IP code, IEC standard 60529. The MIU enclosure should be composed of ultraviolet (UV)-inhibiting ABS or similar material. All materials used in the MIU must be non-hazardous under normal conditions. Indicate compliance or explain the exception to the requirement.

7.2. Battery and Operating Life

The MIUs shall be designed for a 20-year operating life including battery, transmission strength and all other system performance. Indicate compliance or explain the exception to the requirement.

Describe the expected MIU battery life as a range of years within two standard deviations of the average expected life under normal or default MIU meter interrogation and transmission settings and the climate in The Board’s locale. Describe the MIU’s low battery warning system, the warning time in months provided before failure under normal conditions, and how this is accomplished (e.g., based on battery voltage or the number of transmissions). Indicate the differences in expected MIU battery life, if any, when reading different types and makes of meter registers.

If the MIU can be read in a mobile configuration as well as fixed, indicate if there is a different expected battery life for each reading method.

Indicate to what extent the following functions would affect battery life: (a) installing firmware over the air; (b) extracting 5 minute reads from the meter for a one week period (as part of use study or evaluation of meter sizing); (c) on-demand reads more than 4 times per year; and activating a control valve (if available) more than 2 times per year.

7.3. Transmission Characteristics

Proposer shall complete the table below for MIU transmission characteristics in Attachment J.

	AMI Network Mode	Walk-by Mode	Drive-by Mode
RF Communication Frequency			
Transmission Duration			
Total Transmission Duration for 24 Hour Period			
RF Transmission Signal Strength			

7.4. Data Storage

Indicate how many meter readings at what intervals, and what resolution are normally stored in the MIU (e. g., 120 days of one hour reads). Indicate the maximum number of reads that can be recovered in mobile and fixed collection.

Describe what happens as capacity is approached. Describe what happens when capacity is exceeded. For example, does new data overwrite old data?

7.5. Connection to Meter Registers

Describe the proposed normal wiring connection between the MIU and the meter, and any options. The Board requires a tamper-resistant, weatherproof connection that is immune to submergence in water as well as to oils and salts.

If in-line waterproof connectors are to be installed between the MIU and meter, The Board prefers that each end of the connector be factory potted to the wire leads from the meter and MIU, respectively. Describe any proposed method (such as a wire connection designed to release under tension) for connecting registers to MIUs attached to a vault lid that might prevent damage to the meter reading equipment or wires if vault lids are removed abruptly.

Describe any provisions for rodent proofing connector cable.

Briefly describe installation procedures, including connection to meters, programming and provisions to avoid installer’s mistakes in installation. Describe any provisions to prevent mis-wiring in the case that connections use manual splicing or gel-caps.

Describe any provisions for the MIU to automatically detect the correct register resolution needed for the connected register type. If the MIU has this ability, Proposer must provide quality control measures to ensure the correct resolution is transmitted to the HES.

7.6. Mounting and Installation

Describe provisions and requirements for mounting MIUs (elevation, orientation, etc.). Describe mounting brackets provided for different installations. Provide photographs and diagrams of any brackets or lid assemblies used to mount the MIU in vault applications.

For installations in meter boxes, indicate the minimum requirements for the internal dimensions of the meter box (e.g., space between the meter and the underside of the lid).

Prices for mounting brackets, if separate from lids, must be included in the prices for the MIUs in the Price Proposal.

For large meters in vaults, the MIU shall not be mounted on the underside of the lid. Indicate compliance or explain the exception to the requirement.

7.7. ID Number and Labeling

Each MIU shall have a unique, permanent ID number that is transmitted with the meter readings. Indicate the number of digits in the ID number.

The MIU shall be permanently labeled on the outside with the manufacturer’s name, model number, MIU identification or serial number, bar code of this number, required FCC labeling, input/output connections, and date of manufacture. The label should be weatherproof and attached to the MIU where normal installation will not obscure it.

The Board desires that the MIU be shipped with one permanent bar code label and one removable adhesive bar code label for installation control purposes.

Indicate compliance or explain the exception to the requirements.

7.8. Multiple Meters/Registers

Describe any special provisions of the MIU to handle dual-register meters, or multiple meters in close proximity. Indicate if there are multi-port versions of the MIU, and the number of ports for meter

registers or other devices for each model of MIU being proposed. The Board would prefer dual-port MIUs for compound meters, meters sharing vaults, and the use of acoustic leak detectors at meter locations. Indicate Describe any restrictions on installing MIUs in close proximity. Include pricing for dual-port MIUs, if available, in the pricing proposal.

7.9. Antennae

Indicate if an external antenna is required or whether one is optional. Indicate under what circumstances an external antenna is needed. Please indicate dimensions of available antennae. Please indicate maximum length of wire between antennae and meter.

7.10. Tampering

Describe physical features (seals, tamper resistant bolts, etc.) to minimize and detect tampering with the MIU.

Describe safeguards that prevent accidental or malicious effects to the MIUs, such as disruption of the MIU's firmware, parameter or clock changes, continuous waking of MIU leading to battery failure, or unwanted activation of water shutoff (if supported).

7.11. Mobile Operation

Indicate whether the MIU can be read in both drive-by/walk-by and fixed network mode. If the MIU can be read in both modes, please indicate whether the MIU needs to be programmed from one mode to the other mode. If the MIU needs to be programmed, describe the procedures for converting the MIU from one mode to the other mode and indicate whether it can be programmed to do so with mobile DCU or programmer and/or fixed DCU.

7.12. Programmability

Describe MIU programming requirements (including equipment), procedures and options (e.g., transmission interval). Indicate if the MIU can be pre-configured in the factory.

Indicate provisions to avoid installation errors, improper connection to meters, and programming mistakes. Indicate if successful initial communication between the MIU and the HES can be verified in real time (that is, while the installer is present) in the field, and how long it takes.

Briefly describe procedures that need to be followed to replace failed MIUs.

7.13. Meter Register Number

To ensure data integrity and detect meter swaps, indicate whether the MIU can store a meter register number, if this number is transmitted with the meter reading data, and if this number can be captured automatically by the MIU or can be programmed into the MIU from a field programming unit.

7.14. Compatibility with Different Meter Registers

The MIU should be compatible with all meter brands furnished with absolute encoder registers and electronic registers and read at minimum eight (8) digits. Provide a table showing the degree of compatibility of Proposer's MIUs with The Board's makes and models of water meters in table below in Attachment K.

Existing Meters -Manufacturer / Model	Register ID no.	≥ 8-digit reading	Reverse flow	Empty pipe	High use	Possible leak	No usage ≥30 days	Low register battery	Valve position	Meter failure	Magnetic tamper	Encoder removal
Hersey												
Sensus												
Rockwell												
Badger												

7.15. Excessive Failures

An “Excessive Failure” means the failure of two percent (2%) or more installed MIUs within any rolling twelve (12) month period. An Excessive Failure shall not include any MIUs that are outside the applicable warranty period at the time of failure. In the event of an Excessive Failure, The Board shall promptly notify Proposer. Upon receipt of such notice, Proposer will develop a plan to eliminate the problem in all continuing production and to correct the problem in all affected MIUs that are covered by warranty. If the plan requires that the affected MIUs be de-installed for repair or replacement, then Proposer will, at its expense, (a) provide qualified field labor to de-install defective and accessible MIUs that are exhibiting failure in excess of the Excessive Failure threshold and install conforming replacements, or (b) reimburse The Board’s actual, documented and necessary costs of performing such work using its own resources in the form of a credit against amounts due by The Board. Indicate compliance or explain the exception to the requirement.

8 Meter Box or Vault Lids

The cost of any lid replacements or modifications, mounting hardware or remote antennas must be included in Proposer's pricing.

The Board would prefer its custom logo on lids, and would like pricing on standard lid design and custom lid design

Lid Material	QTY
Cast Iron 12.5"	142,000
Cast Iron 23.25"	1,600
Meter Box Lid Dimensons	QTY
12.5" diameter x 0.25" Depth	142,000
23.25" diameter x 3" Depth	1,600

The meter supplied must fit into the SWB standard meter box. The following size specifications shall be followed in relation to the meter boxes:

- 5/8 inch meters shall fit in Ford Meter Box Co. Drawing No. New Orleans No. 1- 5/8" Crescent Meter Box.
- 3/4 inch meters shall fit in Ford Meter Box Co. Drawing No. New Orleans No.3- 3/4" Crescent Meter Box.
- 1 inch meters shall fit in Ford Meter Box Co. Drawing No. New Orleans No. 1- 1" Crescent Meter Box.

Indicate whether concrete or metal meter box or vault lids, respectively, are to be drilled, replaced, and/or left alone in order for the Proposer's system to operate to the performance criteria specified. If any replacement lids are needed, the replacement lid shall not rest higher than the existing one.

Indicate compliance or explain the exception to the requirement.

Indicate if any remote antennae will be used (where the portion protruding through the lid relays the signal to an MIU below the lid), the specifications around such device, and whether such device is traffic rated. Indicate how far above the lid the MIU antenna protrudes. The Board prefers that no part of the MIU or remote antenna be higher than the plane of the top of the lid, particularly for meters in pedestrian areas.

All non-ferrous lids must have sufficient weight or a locking mechanism that prevents them from being dislodged or from floating. All non-ferrous lids must have a ferrous element (e.g. section of rebar) that enables them to be discovered by a metal detector when buried. Indicate compliance or explain the exception to the requirement.

In the case of Bilco-style vault doors or steel plates, Proposer shall provide a proven option that does not compromise the integrity and safety of the door or plate.

Provide a diagram indicating vault lid mounting configuration, with dimensions, including any mounting brackets or lid assemblies, and indicating any protrusion of any part of the MIU above the top plane of the lid.

8.1. Lids in Traffic Areas

Any replacement lid or remote antenna mounted above the lid or otherwise exposed in a paved area where there is a reasonable chance that it could be subject to vehicular traffic or parked on by a heavy vehicle must be rated heavy duty AASHTO H-20/HS-20. Any replacement lid or remote antenna mounted above the lid or otherwise exposed and installed in residential sidewalks separated by a parkway from the street must be rated as least medium duty. Indicate compliance or explain the exception to the requirement.

Describe how lids located in streets and other areas of traffic will be addressed. Describe the proposed solution for large sized (or odd sized) cast-iron lids that may not be economical to replace with traffic rated composite lids.

9 Data Collection Units, Repeaters and Other Network Devices

Respond separately to all of the relevant requirements of this section for each type of network data collection or repeater device proposed. Indicate if the requirement is not relevant (e.g., for network as a service).

Provide in Pricing Proposal estimates for the installation, operation (including electric service, if required, and backhaul communications) and maintenance costs of each device. For sites where The Board has no facilities, estimates must include tower or roof leasing costs for a Board-dedicated or shared network. Provide costs for solar panels, if appropriate.

If communication equipment is to be installed on third-party sites, the successful Proposer shall obtain or assist The Board in obtaining, 20-year rights for installing and operating that equipment; these rights will be transferred to The Board at no additional cost at the time of successful system acceptance.

Indicate compliance or explain the exception to the requirement.

9.1. Mode of Operation and Communication to HES

Describe the method and schedule by which the DCU/repeater captures, stores, and retransmits data received from MIUs back to the AMI HES. Indicate available options (cellular, Wi-Fi, Ethernet, etc.) and the preferred or recommended method for communicating with the HES. Describe what is involved in switching from one WAN technology to another.

9.2. Data Retention

Describe the available memory capacity of the DCU in terms of the number of meter readings and usage intervals stored (in total and per MIU). Specify what combination of full meter readings and consumption increments are stored. Indicate if the resolution of the consumption increments stored is less than the transmitted meter resolution (e.g., gallons versus tenths of gallons). Indicate how many days of meter readings the DCU will store in the event it is disconnected from the network.

9.3. Network Infrastructure

Proposer is solely responsible for determining the mix of data collectors and repeaters (if relevant), MIU placement strategies, and MIU communication configuration needed to meet or exceed the specified performance requirements.

Indicate the proposed number of data collection units and repeaters to achieve the levels of system performance specified. The Board will only be responsible for the costs associated with the proposed network infrastructure and life-cycle cost submitted in the Pricing Proposal. Costs associated with additional network devices, installation changes, 3rd party sites, or additional O&M that are needed to meet the specified performance requirements, will not be reimbursed.

Indicate the percentage of MIUs from which transmissions are expected to be received by only 1 collector, 2 collectors, and 3 or more data collectors in the proposed system.

If repeaters are used, indicate, based on the propagation study, the average number of MIUs from which signals would no longer be received if a repeater failed.

Indicate type of emergency response requirements if power is lost, indicate how long back up battery can function, if there are solar power options and appropriate wind ratings.

9.4. Locations

A list of The Board facilities at which network infrastructure may be installed is included in this RFP as Attachment “I”.

The Board takes no responsibility for network coverage or design by providing potential sites to the Proposer.

9.5. Mounting

Indicate proposed options for mounting DCUs/repeaters. Indicate minimum and maximum required and recommended heights for antennae. Provide specifications with photographs and dimensions of mountings. DCUs/repeaters installed on Board facilities must not interfere with access by Board personnel to any part of the building or structure on which they are mounted, nor in any way compromise the structural integrity. For each device installed on Board facilities, mountings, support system, cabling, etc., must be pre-approved, as well as inspected and accepted, by The Board engineer. Indicate compliance or explain the exception to the requirement.

9.6. Power Supply, Surge Protection

Describe the proposed primary power source for DCUs/repeaters. If solar, provide specifications for solar panel. If electrical, indicate expected kilowatt-hours per month of electrical consumption, and expected maximum watts per device. Describe DCU battery, and recommended preventive maintenance battery change interval.

Describe provisions for electrical isolation and protection against static discharge and indirect lightning strikes.

9.7. Site Costs

Proposer to include in the Pricing Proposal the attachment fees and estimated monthly lease cost for collectors or repeaters that are not to be installed on Board-owned facilities.

9.8. Programming

If the protocol is not store and immediately forward, describe the default transmission interval for sending data from the DCU to the HES.

Describe any programmable features, such as data reporting schedules, for DCUs, and procedures for programming or configuring them.

Briefly describe the procedures by which a DCU/repeater is installed and incorporated onto the network.

9.9. Diagnostics, Maintenance and Repair

Describe the DCU and repeater diagnostic information, including tamper and other alarms, which are recorded and transmitted by the DCUs and repeaters. Describe the DCU diagnostic information that is normally monitored by the HES.

For dedicated networks, describe recommended DCU and repeater preventive maintenance intervals and procedures. Indicate in terms of FTEs the level of effort required to maintain the proposed network solution. Describe the type of work expected if The Board performs the maintenance internally.

Briefly describe maintenance procedures in the event of a device malfunction or damage.

9.10. Collector Firmware

For a Board-dedicated network, indicate if the collector firmware is upgradeable, and, if so, describe how it is upgraded. Indicate if firmware upgrades can be performed over the network.

9.11. Other Applications

For dedicated networks, describe other applications that may use the system’s radio frequency network and data collectors, such as communications for field work automation systems.

10 Back Up Mobile Meter Reading Solution

If Proposer’s system includes an option for a back up mobile meter reading solution in the case of a temporary network failure such as drive-by or walk-by meter reading, please provide responses to this section.

10.1. General Operation

Describe the proposed solution for collecting meter reads and whether it is a drive-by or walk-by solution, specifically describing the collection of both daily and hourly meter reads.

Describe the process for loading routes to and from the mobile reading device. If data can be transmitted wirelessly, describe this process and requirements.

10.2. Hardware Components

Describe the hardware components of the mobile walk-by or drive-by meter reading system.

Indicate which components are ruggedized and/or weatherproof.

Indicate any vehicle-specific requirement for the successful operation of the drive-by meter reading system.

10.3. Mobile Data Collection Software

Describe the software for the drive-by or walk-by meter reading system.

Indicate what map-based features are included (such as navigation, ability to identify new meters identified, and audio/visual indicators during the collection of meter reads). Provide screen shots.

Indicate whether the software has the ability to accept a manual reading and/or notes in the account record.

10.4. Capacity and Collection Speed

If a drive-by solution, indicate the maximum vehicle speed for the normal collection of meter readings.

Indicate the storage capacity of the mobile reading device (number of meter reads).

Indicate the average time required to collect a meter read (both daily and hourly) using the mobile reading device.

Describe any events that would require the driver to stop the vehicle to collect data.

10.5. Communications Protocol

Indicate if and how the communication protocol from and to the MIU for the mobile reading device is different from the communications protocol using fixed network data collectors.

10.6. Accessories

Indicate connecting hardware and software, including cables, modem, cradle, battery, charger, etc., are required for the unit to be fully functional.

11 Portable Interrogation, Field Programming, and Testing Devices

Portable programming units may be required to program MIUs or meter registers. Portable field test units may be required to diagnose problems with meter registers, MIUs, or the system. The possible functions are aggregated in this section. Proposer shall respond to this subsection separately for each separate device if there is more than one, denoting the responses as appropriate.

11.1. Physical Characteristics

Indicate if the programmer and/or handheld interrogators are dedicated units, or software that can be put on a third-party phone, tablet or other devices. If third-party tablets or other devices may be used for programming, meter reading and diagnostics, indicate the minimum hardware requirements. Describe the dimensions, weight, environmental tolerances, resistance to dropping and submergence, and other physical characteristics of the proposed unit. Provide pictures.

11.2. Functions/Modes of Operation

Describe the functions of the unit. Provide representative screen shots.

11.3. Field Programming and Installation

The unit shall be capable of capturing, at a minimum, the new meter reading, register number, old meter reading and address manually. The Board prefers that the new meter reading and register number be captured automatically through the MIU and visually displayed. Indicate if the unit is capable of programming the MIU with any information required for operation that was not factory pre-programmed into the MIU. Indicate compliance or explain the exception to the requirement.

11.4. Field Testing and Diagnostics

The unit shall be able to diagnose problems with a meter register or MIU, unless the system incorporates an alternate way to make such diagnoses. Indicate compliance or explain the exception to the requirement. Indicate if the unit is able to ascertain the remaining life of the battery in an MIU.

11.5. Portable Interrogation

Indicate if the unit is capable of alerting (if necessary) and receiving the signals from MIUs. Indicate if the unit is capable of downloading all the consumption profile data stored in an MIU, if that is a capability of the MIU.

Indicate how far away an MIU can be and still be read by the device.

11.6. GPS Receiver

The unit shall be capable of capturing GPS coordinates within sub-meter accuracy. Indicate compliance or explain the exception to the requirement.

11.7. Capacity

Identify how much data, or how many work orders, each unit can accommodate, and how many meter readings a portable interrogator can accommodate.

11.8. Bar Code Reader

The unit shall include or be capable of capturing and recognizing bar codes to capture meter or MIU identification numbers from bar code labels on these components. Indicate compliance or explain the exception to the requirement.

11.9. Camera

The unit shall be equipped with a digital camera, including flash, for capturing medium-resolution images of meter registers, meters, site conditions, etc., in conjunction with installation, maintenance and troubleshooting. Indicate compliance or explain the exception to the requirement.

11.10. Accessories

Indicate what connecting hardware and software, including cables, modem, cradle, battery, charger, etc., are required.

11.11. Batteries

Provide the unit operation life in hours on a fully charged battery when the unit is involved in installation and programming, including taking up to 3 pictures of each installation. Provide time it takes to fully recharge the unit’s battery after a full day of normal use. Indicate if the battery can be recharged outside of the unit and/or from a 12-volt vehicle system. Explain how the unit ensures against accidental data loss in case of a dead battery. Explain how a battery can be replaced.

11.12. User Interface

Indicate the angular range of readability.

Describe any audible tones used by the unit (e.g., confirming a reading or successful programming, warning of an out-of-limits condition, low battery, etc.).

Describe if color is utilized for differentiation.

11.13. Manual Entry

Indicate whether the unit permits manual entry of meter readings and other information (for example, the information necessary to complete a meter or MIU investigation or repair work order). Provide screen shots for this other information, including notes or comments.

11.14. Portable Interrogator Vehicle Mounting

Describe any provisions for mounting and operating the unit within a vehicle.

11.15. Number of Units

Proposer shall supply all units required for Proposer and its installers. An additional six units are required for System maintenance by Board employees. Pricing and totals for these latter units, including extra batteries, cradles, car chargers, cables, etc., shall be included in the price proposal. The Board shall be entitled to purchase additional units for no more than the unit prices included in the pricing proposal. Indicate compliance or explain the exception to the requirement.

12 Installation/Field Testing Software

Please use this section for responses related to the software application used to manage field installations of MIUs and manage portable field test units/interrogators/programmers detailed in Section 11.

12.1. System Description

Include a detailed description of any hardware (e.g., cradles) or software needed to support portable programmer/reader/ field test units. Describe in detail the functions of the software used to manage this operation, and the reports produced.

12.2. Interface to AMI Head-End System

Describe the mechanism and procedure for downloading and uploading data from installation hardware to the AMI HES and/or any other information system normally used in the maintenance of the AMI system.

12.3. Interface to CIS

Describe the mechanism and procedure for downloading and uploading data from the AMI HES and/or any other information system to The Board’s customer information system and/or its mobile field work order management system.

13 AMI Head-End Network Configuration and Software

13.1. AMI System Head-End Software

The software shall enable The Board to effectively obtain all of the meter readings and other data generated by the system, monitor and manage the AMI system, including underperforming or nonperforming MIUs, repeaters, data collection units and backhaul communications, and determine remediation measures. The software shall interface with the MDMS and/or The Board’s CIS. Indicate compliance or explain the exception to the requirement.

Indicate normal modes of operation of the AMI system software, including batch processing and single meter reading query processing. Describe the steps a system operator must perform to obtain meter readings from the meters at the customers’ premises, if the functions are not totally automated. The Board prefers that meter readings for billing are provided automatically in response to an automated request from the billing system following a billing calendar. The Board prefers that database synchronization also be automated. If these functions are performed by the meter data management system instead of the HES, then so indicate and DO NOT DUPLICATE responses.

13.2. Event Data Storage

Indicate what data is stored in the HES. Indicate how much data, in terms of number of months of data, number of meters, full reads versus increments, meter resolution, and number of reads per day are stored.

13.3. Interface to CIS and MDMS

The HES should automatically transfer appropriate data to the MDMS in a standard, nonproprietary format (e.g., fixed field ASCII). Each record provided to the MDMS shall contain at a minimum: account number, MIU ID number, port number (if the MIU is multi-port), meter ID number and/or meter register number, meter readings, units (size of smallest digit), date and time for each meter reading, and tamper indications. Indicate compliance or explain the exception to the requirement.

13.4. Backup and Failover

Describe the back-up capabilities and procedures to ensure that the HES and consumption data is not corrupted or lost.

The system software and functions should be quickly and easily accessible to users even in the event of a failure at the Proposer’s data center. Describe how this could be accomplished.

13.5. Alerts

Describe any provisions for the system to trigger e-mail or electronic message notification to subscribed users of certain alarms or conditions.

13.6. Reports

Provide a list, with brief descriptions and screen shots or sample pages, of all the standard reports provided for system and component performance; missing or late data; errors, anomalies, tampering, and alarm conditions; and data transfer, management, and administration.

Reports must be able to be directed to a printer, screen, or data file. The system should be able to export data from analyses and reports in standard CSV format. Indicate compliance or explain the exception to the requirement.

The standard reports should include, as a minimum:

- Received signal strength from MIUs
- Number/percentage of reads received from MIUs
- A list of meters (including address or identifying information) that are being interrogated at a higher than normal rate (e.g., every 15 minutes instead of hourly)

- MIUs from which no transmissions have been received, and the ability to sort them by the number of missing days
- MIUs from which there are cut-wire alarms, and the ability to sort them by the number of days the condition has persisted
- Any other flags created by meters and MIUs, such as empty pipe, low battery, reverse flow or magnetic tamper
- Redundancy in coverage of MIUs by collectors
- MIU density per collector
- Duplicate MIU or meter serial numbers; meters/registers associated with more than one MIU; MIUs registered to more than one meter/register
- Mismatch between a meter register ID number and MIU (indicating possible meter change)
- “Orphan” MIUs; that is, MIUs transmitting but not associated with an account
- Data retrieval times/data latency
- Remaining battery life in MIUs, meters and/or meter registers and other network components, or low battery life alarms, including the ability to sort by the number of days the unit has been in alarm status
- Network component status, including communication retries, memory errors, connection errors, and whether the network components pass or fail the Proposer’s operating specifications
- A listing of current AMI control system hardware, software and firmware versions and configurations for routine maintenance purposes
- A list of components that required time synchronization within specified dates
- Installation records

13.7. Ad-Hoc Reports and Export

The software should support ad hoc queries and custom reports, using a built-in report writer or a third-party commercially available report writer that is included with the HES. Permissible report customization shall not void any software product warranties, nor prevent any overlay of future software releases. Indicate compliance or explain the exception to the requirement.

Indicate how to access the HES for ad hoc reports.

13.8. Access

Describe how the system provides secure remote access to AMI system functions, reports and data from other workstations or web browsers on or outside The Board’s network.

Indicate how many users can simultaneously access the system for queries and for data entry.

13.9. Database Access

The database should be directly accessible by The Board (read-only, replication or placement in a data warehouse). Indicate procedures for correcting misinterpreted or mis-assigned data.

Any database file structure used to store and manage meter readings at the AMI HES should be non-proprietary, ODBC-compliant and SQL-compliant, and provided by a standard commercial database supplier.

Indicate if the data structure of the head-end database allows new data elements. Changes in database table structures shall be transparent to The Board from one revision of the AMI HES to another. Indicate compliance or explain the exception to the requirement.

13.10. System Administration and Security

Describe normal procedures for system administration.

Describe the security infrastructure of the proposed HES; how security is implemented at the presentation, application, database, and network levels; logging of system access and database transactions for all actions, and items captured as part of the security log.

14 Meter Data Management System

Software is required to manage the database of meter readings and other information created by the AMI system. This software may be distinct from the HES used to manage the AMI system. Meter reading data management capabilities shall be described in response to this section.

14.1. System Architecture

Provide a software architecture diagram and a description of all of the proposed software, including all third-party middleware, database engine, report generator, etc. Include version numbers of all products.

14.2. Mode of Operation

The software shall collect and maintain historical meter read data, including at a minimum: meter identification number, meter attributes, meter location, account and premises identification, meter reads, read dates and times, failures to read, tampering alerts, and leak detection, for each meter in the system.

The MDM software shall provide reports of the current status and reading history of individual accounts and selectable groups of accounts. The software shall be able to sort and list accounts and their meter reading data. The software shall also be able to create user-defined account groups and aggregate consumption profiles.

Indicate compliance or explain the exception to the requirements.

Indicate normal modes of operation of the AMI system software, including batch processing and single meter reading query processing.

14.3. Online Storage

The system shall maintain at least two years of “live” (that is, instantly accessible) hourly meter reads. Additional data shall be available on a retrieval basis. Indicate compliance or explain the exception to the requirement.

Indicate the maximum number of meters the MDMS can support with live storage of data as defined above. Indicate the maximum number of years of live data that can be supported.

14.4. Interface to CIS

The MDMS must interface to The Board’s CIS system to provide monthly or on demand meter readings both individually and in batch upon request by the system; synchronize data related to meters, service locations and customers; and provide status reports of alerts for accounts. Indicate compliance or explain the exception to the requirement.

Customer information shared and synchronized with the CIS should include billing cycle, rate class, customer account-premise-meter relationship, meter type, etc.

Indicate if Proposer has integrated the proposed MDMS with the CIS software make and version used by The Board.

Briefly describe the process by which the MDMS is integrated with The Board’s CIS.

The Board prefers that meter readings for billing are provided automatically in response to an automated request from the CIS following a billing calendar. The Board prefers that database synchronization also be automated.

Describe the steps a system operator must perform to obtain meter readings from the meters at the customers’ premises for billing purposes, if the functions are not totally automated. Describe the process by which the MDMS would be synchronized with The Board’s CIS. Indicate the recommended synchronization frequency.

14.5. Meter Reads/General

Describe the functions provided by the system “out of the box,” including:

- Input, process, store, and analyze consumption, and interval data from multiple AMI technology collection systems, field tools, and The Board’s existing meter reading data transfer systems.
- Input, process, store, and analyze consumption pressure and other sensor measurements, if available.
- Identify and report tamper flags and missing or incomplete meter data.
- Support scheduled and on-demand meter readings.

14.6. Analysis of Usage

Describe how potential leaks, high consumption, misuse and water theft are identified by the software from the data, and what analysis reports are generated, including:

- Identification of possible low flow rate leaks (e.g., extended periods when interval reads are always above zero or above user defined thresholds; “interpolated” leaks when several but not all interval reads are non-zero) by account.
- Identification of possible continuous high consumption events at individual customers’ premises.
- Monitoring “usage on inactive” (registered reads above configurable thresholds without an active customer account).
- Water theft analysis, use after shut off, and reverse flow.
- Identification of intermittent backflow situations.
- Identification of any meter with little or no change in registration (zero or low consumption) for a configurable number of days.
- Identification of accounts where usage violates temporary restrictions (e.g., apparent outdoor irrigation usage during non-allowed times or days).
- Consumption profiles by season and day type (weekday, weekend, month, holiday, etc.) and by rate class, customer type, and/or any user-specified collection of meters.
- Combining consumption from two registers of a compound meter, including handling the scaling of different registers.
- Consumption histograms to help right size meters.

Indicate which of these conditions can trigger automatically generated alerts and notifications

Describe (if available) consumption projection analysis.

Describe how reports can utilize information from external data sources, such as weather data.

14.7. Analytic Capabilities

Describe any capabilities of the software to provide customer, consumption and meter analytics, such as: meter underperformance, unauthorized consumption, non-revenue water analysis, etc.

14.8. Grouping of Meters

The software shall be capable of generating consumption profiles for groups of meters (“virtual meter”), such as all meters in a consumption class. Describe the process for setting up groups. Indicate by what parameters or data fields meters may be grouped for this purpose. Describe the procedure for assigning meters in the MDMS to district metered areas (DMAs).

The system should enable the comparison of consumption between an individual meter and a group of meters, or between two or more groups of meters.

The system shall enable the comparison of consumption from all of the meters within a demand management area and the master meter(s). Describe the options for obtaining and synchronizing the appropriate master meter data.

Indicate compliance or explain the exception to the requirements.

Describe the options for reporting this data, including graphical and tabular, and maps.

14.9. System Event Reporting and Tamper Management

Describe how the MDMS can be used to track and report on potential system status issues, including:

- A normal meter change-out or installation, authorized by a work order (including a meter with higher resolution than the meter it is replacing).
- Identification of a meter that has been changed or installed without a work order.
- Missing reads. Show how the system can triage or prioritize recommended work orders based on number of missing reads, proximity to billing read dates, severity of the problem, etc.

Describe how the proposed system analyzes meter or MIU tampering flags and automatically generates alerts and notifications, including: logging event messages, and changes, and reporting status of logged event messages (i.e. ignored, fixed, etc.); storing all collected event and alarm data; and performing trending analytics and correlating failures with a variety of attributes and time frames.

The MDMS shall enable the users to set start and end date report filters for the above.

The system shall provide a list of accounts with one or more of the above conditions.

Indicate compliance or explain the exception to the requirements.

Provide sample reports for these cases. Indicate how information may be pushed to or requested by CSRs.

14.10. Reporting

Describe other standard reports and trend analyses provided by the proposed system not included in response to the above three sections.

Describe how reports are to be generated on demand.

Describe how reports are to be generated based on a schedule.

Describe how system generated reports are sent to predetermined email addresses and storage file locations.

Describe end user report customization capability with ability to save as reporting templates.

User shall be able to be set up or change reports without modifying source program code and without any proprietary language skills. Indicate compliance or explain the exception to the requirement.

Describe how reports can be exported to standard file formats (ex: .csv, .xls, .mdb, .html, pdf, etc.).

The database should be directly accessible by The Board (read-only, replication or placement in a data warehouse).

List all supported reporting tools (i.e. Hyperion, Crystal, Cognos, Obvient, etc.).

14.11. Customer Service Representative Interface

A Board Customer Service Representative (CSR) or other employee shall be able to access an account by at least the following fields: account number, name, address, premises ID number, meter body ID number, register ID number, MIU ID number. Indicate available customer search parameters.

A Board CSR or other employee shall be able to view latest or current reading (with time of read), consumption history over a selectable date range, meter information, usage statistics (e.g., max flow rate, usage by day of week, etc.), historical events (tamperers, alerts, etc.). The employee shall be able to view consumption with selectable granularity (e.g., hourly, daily), compare usage to same period last year, or to comparable meters, and display data both in bar graph and table form. Describe the process by which a Board employee will view or generate a file of this information. DO NOT duplicate descriptions here with responses below.

Indicate compliance or explain the exception to the requirements.

Indicate the ability of the MDMS to display consumption data minimum hourly flows in each 24-hour period

Indicate the ability of the MDMS to display consumption data in conjunction with external data such as temperature.

Indicate if the CSR can see through the MDMS a screen identical to what a customer sees through the customer portal.

Describe any other features available to a Board CSR or other employee.

Indicate if the software can associate more than one account number or meter number with an individual customer.

14.12. Validation, Editing and Estimation

Describe the system’s capability, if available, for handling gaps, overlaps, or implausible reads, estimating missing reads, and backfilling missing or estimated reads with valid reads that are obtained later. The process should provide an audit history of any data modified or added as a result of the process.

Indicate procedures for correcting misinterpreted or mis-assigned data.

14.13. Data Validation and Exception Handling

Describe detection and prevention of logical data errors when the data is input by users.

Indicate the error codes and descriptions which can be used to help facilitate debugging end user problems. Error codes must reference the specific exception.

Describe provisions for detection, prevention and reporting of logical data errors when data files are imported from other systems.

14.14. Notification Support and Administration

Describe capabilities of the software to provide data files to generate field service order requests based on configurable settings, and the ability to send service orders to other work order management systems

DO NOT ANSWER HERE IF CAPABILITY IS PROVIDED BY CUSTOMER PORTAL. Describe capabilities of the software to provide data files to CIS and/or outbound dialing IVR with messages concerning possible leaks, high consumption, unauthorized irrigation, etc. Describe capabilities to generate letters, emails or text messages for customers. Indicate data required from CIS to provide this capability. Describe ability to provide flags to account records in CIS of conditions or messages created.

DO NOT ANSWER HERE IF CAPABILITY IS PROVIDED BY CUSTOMER PORTAL. Describe capabilities to keep track of notifications (e.g., about continuous flow) that have been sent and whether they have been received, and to schedule subsequent notifications if the condition still persists.

14.15. Meter, Meter Register and Meter Interface Unit Asset Management

Describe meter configuration data and the process for changing it. Describe how an MIU is assigned to a premises ID, customer ID, meter body ID, register ID, and geographic location. Show how the software maintains asset data, including installation date, model number, etc. Describe how total consumption is tracked including meter rollover.

14.16. AMI Installation Support

Describe any functionality of the MDMS for specifically managing installations of meters, meter register retrofits, and MIU-only installations.

14.17. MIU/Meter Changeout

Indicate if the software can associate old MIU and new ID numbers with a service address, customer account and unique premises ID to maintain account continuity. Indicate if the software can associate old meter body ID, old register ID, old meter final reading, and new meter ID and reading from a meter exchange process with a service address, customer account or unique premises ID for continuous consumption profiling. Describe the process for inputting a meter or MIU change in the MDMS,

maintaining the continuous consumption history for an account while keeping track of the point of change-out.

14.18. Database

Describe responsibilities if a Board database administrator (DBA) is required to maintain database.

Describe backups, either incremental or full, without stopping any operational processes.

Describe automated data archiving, purging, and restoration.

14.19. User Environment

Identify web browser options for proposed system.

Indicate if software supports a session logout that will terminate the user session with a configurable session timeout value.

Indicate if software supports a session kill on both browser-away and browser-close.

Describe context sensitive online help.

14.20. System Configurability

Describe the types of configuration changes that would require a system restart.

Describe functionality to allow The Board to set up and change data validation and estimation rules, without modifying source program code and without any proprietary language skills.

Describe functionality and process to make changes to and alarm/event notifications.

Describe functionality and tools to change format, content or functionality of user screens and online help contents.

14.21. Information Protection and Encryption

Describe the system's data encryption capabilities. For presentation to external end users (e.g., the online presentment application), describe how the proposed system will support masking and/or encryption of sensitive data as identified by The Board.

14.22. Support and Maintenance

Describe Proposer Help Desk availability (e.g., hours, time zone, etc.) and escalation procedure.

Describe upgrade frequency and notification process.

Indicate whether upgrades can be implemented by Board staff or whether Proposer assistance is required.

Describe any plans for sun-setting the proposed system.

Describe prior version support.

15 Customer Web Portal

The proposed solution shall include a web portal for The Board’s customers to access detailed data from their meters. The data must be presented in simple graphs that are easily understood by most users.

Indicate compliance or explain the exception to the requirement.

Describe and show (with screen shots) how the software provides the following capabilities. If the capabilities requested below are covered in the MDMS section, don’t repeat here.

15.1. Log in and Passwords

The platform should have a configurable interface that can be presented as a seamless extension of The Board’s own web site.

The software shall be accessible to customers using web browsers from major manufacturers on mobile devices, tablets, and computers.

The software shall allow the customer to initialize an account for access using address and account number. Initializing a customer account shall require no involvement of Board staff. Account initiation should be completed using an emailed or texted authorization code.

The software should provide support for Board account file import and account and password authentication, or two-step authentication. Describe password requirements.

Indicate if the customer portal can be accessed by a customer from The Board’s website or e-billing page. If so, indicate if the customer portal supports single sign-on and if it is SAML compliant.

The software shall allow the customer to retrieve or re-set a forgotten password via the previously established email.

The software should provide for password support to Board CSRs to manage forgotten usernames and passwords.

Indicate compliance or explain the exception to the requirements.

15.2. Customer Display

The software's main customer display screen shall have The Board's logo and branding on it.

The display shall provide all account, address, and meter information relating to that particular customer.

The software shall display the customer consumption history in a graph that can be configured to a customer-specified start and end date. The default period should be the customer’s latest complete billing period.

The software shall be able to display daily and hourly usage up to the most recent data available in the MDMS.

Describe the ability of the software to clean up data errors and alarms on customer display. Indicate what options The Board has to only show validated usage data, or a manual estimation done by a CSR to customer, and to show or suppress register or MIU errors and other alerts.

The graph shall allow the customer to compare consumption history for different time periods on a single graph (e.g., consumption by month this year versus last year).

The customer shall be able to select the resolution of the consumption interval displayed (hourly, daily, monthly, and yearly). Indicate the amount of data that can be displayed for each interval (e.g., 6 months, 31 days, 24 hours).

The customer web portal should use adaptive web design.

Indicate compliance or explain the exception to the requirement.

Describe capacity to overlay data streams (e.g., temperature, rainfall, occupancy, etc.) from other sources. Provide examples.

The Board desires the customer portal be capable of projecting customer bills based on usage in the current (unbilled) billing period. Describe the capability to show cost data for individual consumption

profiles based on the customer’s rates, tiers, wastewater charges, or total estimated cost and consumption for the current billing period.

Describe the capability to provide a graph of the customer’s consumption history against the average consumption of similar customers.

Describe the capability to provide recommended or The Board-supplied water budgets based on number of occupants, weather, landscape area, special features, customer type, etc.

Indicate if a Board CSR can see a screen identical to what a customer sees through the customer portal.

15.3. Multiple Meters and Accounts

The software shall allow customers to access and view all meters or accounts they are responsible for in a single logged on session. Where a meter has more than one register, the software shall be able to aggregate the consumption into a single view with proper multipliers applied. Indicate compliance or explain the exception to the requirements.

15.4. Alerts

Describe from where (HES for alarms, MDMS for consumption profiles, etc.) and how (e.g., FTP interface) the customer portal gets its information.

Indicate the alarms that can be provided to the customer through outbound notification, such as persistent or intermittent consumption indicative of a leak, excessive consumption, excessive charges, or usage over a threshold for a specific period of time (e.g., when the premises are vacant).

Indicate whether the consumer can set thresholds for these alarms, i.e. low flow

Describe the provisions for the consumer to designate emails, cellphone numbers (for text messages), or other communications for various alarms. Indicate if the consumer can enable multiple contact emails or phone numbers, or contact emails or phone numbers for different conditions. Indicate if the CIS can be updated from contact information submitted by the customer to the web portal.

Indicate if the software has provisions to allow consumers to opt in or opt out of notifications.

The software should be able to inform a customer of a violation of certain Board-defined usage restrictions (such as excessive flow rates or volumes indicative of outdoor water use on certain days or at certain times).

Describe capabilities of the software to provide data files to CIS and/or outbound dialing IVR with messages concerning possible leaks, unauthorized irrigation, etc. Describe capabilities to generate letters, emails or text messages for customers. Indicate data required from CIS to provide this capability. Describe ability to provide flags to account records in CIS of conditions or messages created.

Describe capabilities to keep track of notifications (e.g., about continuous flow) that have been sent and whether they have been received, and to schedule subsequent notifications if the condition still persists.

Describe capabilities to provide data files to CIS including information regarding contact made with customers via alerts so that CIS can log that information on the specific account.

Describe the portal’s capabilities to provide the Board defined special messaging for BWA (boil water advisory) or low pressure, leaks, etc.

Describe the portal’s ability to have links to other on-line resources (e.g., conservation web sites).

Briefly describe the portal’s online help screens and tutorials.

15.5. Reporting

The software shall allow the customer to download both graphical and chart based reports of their consumption. The downloaded reports shall be available in PDF and Excel.

The Proposer shall be responsible for developing up to five custom reports at The Board’s direction that the customer will be able to view and download. Indicate compliance or explain the exception to the requirement. Describe how missing data points are managed and displayed.

16 Software and Integration Testing and Acceptance

HES acceptance testing shall include testing functionality of features described in the proposal, testing of all interfaces to The Board’s IT systems developed by Proposer in conjunction with The Board, testing capacity of systems to perform when processing large quantities of data and transactions, and testing capacity of the system to detect and reject input data that would fail reasonableness checks (i.e., reading dates in the future, or non-numeric meter readings).

Acceptance testing should be conducted in stages as follows:

- HES and network management hardware and software, which will capture meter readings and other data from MIUs installed at customers’ meters as well as provide reports on the performance of the network components, redundancy, MIU battery life, etc.
- Network communications (i.e., point-to-point from MIU through network to HES).
- MDMS and customer portal software.
- Interfaces to The Board’s CIS and other information systems specified in the RFP or proposed by the Proposer, which will enable the system to make accessible or deliver readings to and synchronize data with these systems for work orders, asset management, etc.
- Software used to control and manage the Proposer’s MIU installations to ensure that all installation data is captured correctly. This includes integration to any handheld devices used in the installation.

Prior to any work being performed, the Proposer shall submit to The Board for approval a system testing plan covering functional requirements of each software component; integration between network components, AMI software and hardware, the MDMS and customer portal, the installation control system, and The Board’s CIS; and end-to-end performance. Proposer shall detail the testing approach, testing schedule, test data, test cycles, test scripts, and failover/repair/restore process for functional tests, integration tests and end-to-end tests.

Proposer’s representatives together with Board representatives shall perform the acceptance testing. Acceptance testing shall be performed at The Board’s facilities unless the parties agree otherwise.

The Board will provide Proposer written notice of acceptance upon successful completion of each test. Progress payments will be tied to successful testing at each stage.

Software and integration acceptance testing shall take place prior to the acceptance by The Board of any network components.

For individual failed tests that require fixing, The Board may require retesting the entire component if it reasonably expects that the fix could compromise other functions. The Board may reasonably require repeating any tests for which it determines the test results are unclear.

The testing protocol shall be followed regardless of whether The Board opts to operate and maintain the network itself or have the network managed by the Proposer.

Indicate compliance or explain the exception to the requirements.

17 System Documentation

All system documentation and manuals shall be provided prior to the commencement of training of Board employees.

Proposer shall provide in electronic portable media (CD/DVD, etc.) all standard manuals and additional customized (for The Board) written procedures sufficient for complete operation and maintenance – including:

- MIU Installation
- Data collection unit and repeater installation (if the network is dedicated)
- System administrative operation, performance monitoring, diagnostics and maintenance
- Backup and recovery procedures
- MIU field diagnostics and repair
- Network component diagnostics and repair

The electronic versions shall be indexed, searchable, and printable. Proposer shall make standard manuals available online to Board employees.

Indicate compliance or explain the exception to the requirement.

17.1. Third-party Software Manuals

Manuals for any third-party software components incorporated into the system shall be available online or on CD/DVD in searchable and printable format. Indicate compliance or explain the exception to the requirement.

17.2. Updates and Revisions

Proposer shall promptly update online documents whenever there are any revisions or additions to the manuals. Describe notification and update procedure. Proposer shall provide a method to track and monitor all changes to software, hardware, operation, and maintenance procedures. Indicate compliance or explain the exception to the requirement.

18 Training

18.1. Prerequisite to Installation

Proposer must provide proper training to designated Board staff prior to the commencement of installations. Indicate compliance or explain the exception to the requirement.

18.2. Training Location and Equipment

All training shall be performed at The Board’s offices and facilities, or in the field in The Board’s service territory. Proposer shall provide all additional training on The Board’s AMI system equipment (including the HES and database) after it is installed, tested, and accepted by The Board. Training should use real data from The Board’s own system. Proposer shall restore, repair, or replace any Board equipment damaged in training, and restore any hardware or software modified in training. Indicate compliance or explain the exception to the requirements.

18.3. Training Curriculum

Proposer shall provide thorough training of Board employees in all areas required to install, operate and maintain the system and obtain and use data from it. This shall include, but not be limited to training in the following areas for the designated number of people. Specify the teaching method and duration for each of these training sessions.

- All aspects of the AMI system’s operation, including obtaining reads and consumption data from the system, transferring reads and other information between the AMI system and the CIS; creating, analyzing, and customizing system performance reports, diagnosing potential problems with system components, and changing or adding customer accounts/MIUs/ meters to the system, for a minimum of 30 Board employees or agents.
- Meter reading database management for a minimum of 30 Board employees or agents.
- Use of the MDMS and customer portal for a minimum of 30 Board employees or agents.
- Use of the Proposer’s installation management and project control software in association with proposer’s handheld programming devices for a minimum of 15 Board employees or agents.
- Field installation of MIUs, as well as MIU field diagnostics and maintenance, for a minimum of 15 Board employees or agents.
- AMI system maintenance, including the use of system management and diagnostic software, and HES, as well as guidance on staff skills and resources needed for these maintenance functions, for a minimum of 20 Board employees or agents.
- Network component (including data collection units and repeaters, if used) installation and field maintenance, for a minimum of 10 Board employees or agents.

Proposer shall record each type of training session conducted to allow The Board to utilize the training session recordings for future training sessions for its employees.

18.4. Instructors

Proposer shall provide trained and experienced instructor(s) and ensure that they do not perform other duties during the training period that will interrupt instruction.

Instructor will provide a checklist to trainees to evaluate presentation of course materials for effective feedback from The Board.

Indicate compliance or explain the exception to the requirements.

18.5. Training Objectives and Outline

Proposer shall provide a detailed outline of each training session’s objectives and content at least 2 weeks prior to the training session to The Board for review and approval.

Indicate compliance or explain the exception to the requirement.

18.6. Training Aids

Proposer shall provide trainees’ workbooks, training aids (including software and video), and system technical manuals prior to or during the training session at no additional cost. Proposer shall provide copies of workbooks for the number of employees trained for each type of training plus 5 extra copies. If training aids include the technical manuals, then Proposer shall provide the appropriate manual for each trainee in the training class that the manual covers. Indicate compliance or explain the exception to the requirements.

18.7. Testing

Proposer’s training shall include an evaluation of trainees to ensure that they have learned the course content and can perform all necessary functions on the system. Evaluation criteria and testing shall be approved in advance by The Board. Proposer shall notify The Board of any employees who fail this evaluation and provide them additional training as required. Proposer shall repeat a training session at no additional cost to The Board if a majority of the trainees in a particular subject have not attained the skills from the training session or fail the evaluation at the end of the training. Indicate compliance or explain the exception to the requirements.

18.8. Supplemental Training

Proposer shall provide a schedule of costs for additional training beyond the initial training proposed. List each training type and provide the cost for each.

19 Support

19.1. Support Periods

Proposer shall provide onsite support commencing when AMI SaaS software applications are available to The Board and continuing through The Board’s issuance of a Notice of Completion following Final System Acceptance. The charge for this support shall be included in Proposer’s cost proposal.

Support shall be provided during any warranty periods for the equipment covered by the support service and during active maintenance agreements.

Indicate compliance or explain the exception to the requirements.

19.2. Support Severity Levels

Proposer shall provide a schedule of maximum response times based on severity of system problems.

Severity ratings should be comparable to the following:

Level 1. A problem for which there is no work-around or failover and that causes the software or system to be unavailable.

Level 2. A problem for which there is no work-around and results in essential features of the software or system not working.

Level 3. A problem that has a material impact on the functionality of the software or system, but for which a work-around is available and significant business functions are not materially impaired.

Level 4. A non-critical problem in the software or the system.

Level 5. A request for an enhancement.

During normal business hours (Monday through Friday 08:00 – 17:00 (GMT-4), response time to Level 1 or 2 problems shall be within one hour of The Board reporting an inability to use the system. Outside of normal business hours, response time shall be within four hours of The Board reporting an inability to use the system.

For a Level 3 problem, these response times shall be 2 hours if reported during normal business hours and 1 business day if reported outside of normal business hours.

Response to Level 1 and 2 problems that cause the software or system to be unavailable shall be provided on a 24/7 basis until the problem is cured.

Should Proposer fail to respond within these times, The Board shall have right to impose liquidated damages of \$200 per hour, credited against amounts payable to Proposer for license and maintenance fees.

Reponses shall consist of telephone support, remote access to address system problems, and on-site service, depending on the severity of the problem.

Proposer shall provide in its pricing proposal a schedule of any incremental increase in license, maintenance and support fees charged to The Board if The Board increases the number of installed MIUs.

Indicate compliance or explain the exception to the requirements.

19.3. Telephone Support

Proposer shall provide trained persons to answer technical questions and guide The Board employees through the use or diagnosis of the system through a toll-free number.

Telephone support shall be available at a minimum from 7:00 a.m. through 6:00 p.m. (GMT-4) Monday through Friday and at any time for Level 1 and Level 2 problems. Indicate telephone support hours proposed. Response time to a Board telephone query shall be within 30 minutes.

Indicate compliance or explain the exception to the requirements.

Describe Proposer’s current support operations (number of persons, location, hours, etc.).

19.4. Remote Access Monitoring and Support

Proposer shall be able to remote connect to all the AMI software applications to monitor performance, diagnose problems, load patches and upgrades, etc., subject to The Board’s firewall provisions, if applicable. Indicate compliance or explain the exception to the requirement.

19.5. Supplemental Onsite Support

Proposer shall provide onsite assistance at the request of The Board. Onsite support should be rendered within two (2) business days of receiving a request for support. Proposer shall provide a schedule of minimum response times for onsite support, and a schedule of costs. Indicate compliance or explain the exception to the requirement.

19.6. Support Groups

Describe any user groups, users’ conferences or any other collaborative communities of the Proposer’s users.

20 Information Technology Security

The AMI system software, including HES, MDMS and customer portal, shall authenticate and authorize users of the system through user login names and encrypted and masked passwords, configurable role and function-based controls to limit access to data, limit access to software functions and features of the system, and provide traceability and thorough user audit logging. Describe the process for establishing user access privileges. Describe support for secure access and authentication, role-based security and permission-based functionality for internal and external users and Application Programming Interfaces (APIs), and the level to which security is granted (e.g., function, user, data element). Describe control of administrative or super user access over the Internet.

The AMI software shall provide automated methods of preventing cross-site scripting (XSS) attacks or SQL injection attacks from compromising the databases or software functions.

Indicate compliance or explain the exception to the requirements.

Provide an overview of Proposer’s processes to identify, quantify, and prioritize its AMI system IT and Infrastructure risks against defined risk acceptance levels and objectives. Describe Proposer organization’s IT Risk Governance, IT Risk Life Cycle, and Information Security Policy, including how and how often the policy set is reviewed and maintained.

Indicate how Proposer verifies IT security and risk management of its suppliers and subcontractors.

Describe Proposer’s data center physical controls and environmental controls; operational security controls, including logging and monitoring system and network activity; intrusion detection methodology; data backup and restoration process; Proposer’s change control process; and its access control policy and rights administration.

Describe Proposer’s policies and program to protect the privacy of The Board and customer data through its life cycle of collection, storage, usage, sharing, transferring, securing, retention and destruction. Describe how and by whom the program is administered, and how it ensures compliance by all subcontractors and third parties.

Indicate the development lifecycle for each of the software components of the AMI system, including the frequency of application and system security review, and its application and system patching strategy.

Describe Proposer’s incident management program and business continuity plans for the AMI system software, and how often the plan is tested.

Describe AMI system software design considerations and compensating controls for threats caused by malicious or negligent administrators or authorized users of the system operating maliciously or negligently, threats involving AMI audit logs, cyberattacks, eavesdropping threats, threats that arise due to an incorrect or insecure implementation, and threats transmitted by other information systems to the AMI system interfaces.

21 Field Installation

The following provisions will apply to work performed by either Proposer’s own staff or installation subcontractor(s).

Proposer shall manage installation of AMI equipment. The Proposer shall:

- Specify the installation methods
- Train the installation service providers
- Manage the installation performance
- Be responsible for the quality control and quality assurance of the AMI network and MIU installations
- Be responsible for the overall performance of the completed AMI system

In the case of a dedicated network, a number of collectors sufficient to verify corresponding field installations shall be installed, tested and operational prior to starting MIU deployment.

Indicate compliance or explain the exception to the requirements.

Describe the proposed approach to managing the network, meter and MIU installations.

21.1. Board Project Manager

The Board will designate an employee or agent who will manage the project on behalf of The Board, coordinate with the Proposer and ensure compliance by the Proposer with the specifications. The designation of a Project Manager shall not relieve the Proposer of its full responsibility to comply with the terms of the Contract and all plans and specifications.

21.2. Installation Schedule

The Board and the Proposer shall establish an overall schedule for installation of the entire project. On the first work day of each week, the Proposer will provide The Board an updated schedule of where work is planned for the next 3 weeks.

By 7:30 AM (GMT-4) on the first business day of each week, Proposer will provide The Board a schedule of where work is planned for that day and each subsequent day of that week, to enable coordination and communication between The Board and Proposer for the work. If the schedule changes for whatever reason, an updated daily schedule shall be forwarded to The Board within 24 hours.

Indicate compliance or explain the exception to the requirements.

21.3. Work Hours

Indicate normal installation work hours, which must be approved by The Board. Installers must be available for evening (until at least 8:00 PM) and Saturday installations, as well as for installations that must be conducted at other times because of special needs. Indicate the number of installers proposed for all installation periods, including those that will be allocated to evenings and weekend times.

21.4. Installation Sequence

Proposer shall conduct installations by Release, defined as meter reading routes, zip code, or other group based on geographic proximity and logistics, to be determined by The Board in discussion with the Proposer. The Board will retain the right to prioritize other groups, or to reorganize priorities, both before the project begins and during the project. No more than two Releases at one time shall be available to the Proposer for installations.

Unless approved in writing by The Board, Proposer shall meet the following requirements in one of the two available Releases before a new Release can be provided to the Proposer:

- The Proposer shall complete at least 90% of the installations in the Release. The remaining 10% of installations in the Release shall be completed within 30 days of reaching 90% completion in that Release. Exceptions to completion may be granted by The Board; for example, if a property is vacant or abandoned, has fragile or deteriorated plumbing, has inoperable control

valves or curb stops, the Proposer has been denied access after following the agreed-to contact procedures, or other factors as determined by The Board.

- The network performance for the installed meters within the Release shall be no less than metrics defined in Section 4.3 Read Success Rate.
- The Proposer shall install all network infrastructure as per the Proposer’s network design approved by The Board to ensure adequate network coverage prior to any new Release installations commence.

Indicate compliance or explain the exception to the requirements.

21.5. Account Data File

Prior to the start of the installations, The Board will provide the Proposer with an electronic file containing the information necessary to create work orders for meter/AMI installation. The Board will provide the Proposer with periodic updates to this file for routes where the AMI system has not yet been installed. For each meter, the data file will indicate the meter size, make and serial number, whether or not the meter shall be replaced, the meter location, access notes to the meter, and the name and phone number that may be listed on the account. Indicate compliance or explain the exception to the requirement.

21.6. Work Order Processing

Proposer shall be responsible for ensuring that all data transfers to and from The Board’s information systems are properly working before commencing any installations. The Board desires read-only access to the Proposer’s database and reserves the right to audit the Proposer’s database.

Each Proposer’s work order issued to an installer will include, at a minimum, the customer’s address, service address, premises identification number, meter location, MIU or remote location, designation of whether meter is to be replaced, existing meter number, existing register number, meter make, model and size, and most recent meter reading. All work orders shall be provided electronically.

Should the installer find any discrepancies in the information provided in the work order and what is observable at the installation site (e.g., different meter or MIU number, location or other characteristic), the installer or Installation Manager shall immediately contact The Board Project Manager or designated representative and shall not attempt the installation until the site is inspected by or shown to (e.g., using cellphone camera) a Board representative and given authorization.

The Board may request that the installer collect and include in the returned work order reasonable additional field data, such as premises type (residential, commercial, or industrial).

Indicate compliance or explain the exception to the requirements.

21.7. Customer Notification

Between 4 and 5 weeks prior to the commencement of installations for a particular group of customers, Proposer shall send The Board-approved letters informing customers of the project. At least 2 weeks prior to the commencement of installations for a particular group of customers, Proposer shall send The Board-approved notices to those customers indicating the time when installations will occur and requesting that customers call the Proposer for appointments if the meter is to be replaced and (1) the meter is inside, or (2) the customer has special needs regarding the momentary disruption of water service. The text of all Proposer letters, door hangers, and other communications with customers must be submitted to The Board Project Manager for approval at least 2 weeks prior to use. Proposer shall also develop and submit to The Board the scripts for any telephone conversations with customers for approval by The Board’s Project Manager at least 1 week prior to use. Indicate compliance or explain the exception to the requirement.

21.8. Notification of Owners

Proposer must notify the owner of a building of its intent to install the AMI system at a particular customer’s premises if inside access is required. The owner may authorize the Proposer to make an appointment with an adult (age 18 or over) tenant or the owner’s adult (age 18 or over) representative. Proposer shall document such authorization. Customers who have multiple meters shall be given the opportunity to schedule the installation of MIUs on all of those meters in a short period of time, provided those meters are located near each other. Indicate compliance or explain the exception to the requirement.

21.9. Appointment Scheduling

While customer notification is required for all installations, installation appointments will only be necessary if the meter is not readily accessible or service is to *critical* residential customers or when interruption of service is anticipated. Proposer shall be responsible for scheduling and handling all installation appointments. The Board desires that installation appointments be made with 2-hour precision. Whenever possible, Proposer shall notify customers of any changes in schedule at least 1 day in advance of the original appointment. The Board reserves the right to impose a penalty of \$200 for each instance where the Proposer has failed to properly notify the customer at least 24 hours in advance of the appointment time of the need to reschedule for another day. The Board reserves the right to impose a penalty of \$200 for each instance where the Proposer has failed to properly notify the customer at least 2 hours in advance of the appointment time of a late arrival. The Board reserves the right to impose a penalty of \$200 for each instance where the installer has completely failed to show up for an appointment. Indicate compliance or explain the exception to the requirements.

21.10. No Solicitation

No contractor, or its employees or agents, may solicit business from The Board’s customers while engaged on any contract associated with this project.

21.11. Daily Reports

A listing of all installation appointments to be visited by Proposer’s installers each day shall be electronically transmitted to The Board each work day prior to 7:30 a.m.

At the end of each day, the Proposer shall transmit electronically to The Board information on all work orders performed in a Board-approved file format, so that The Board can respond to customer inquiries. Indicate compliance or explain the exception to the requirements.

21.12. Twenty-Four (24) Hour Customer Access

For 5 days after the installation has been accepted by The Board and The Board has been notified of a given installation, Proposer must respond on a 24 hour-per-day basis to calls from the customer associated with that installation or from The Board, concerning leaks, loss of service, low pressure, and other problems associated with installation.

Should the Proposer receive a call or complaint from a customer or The Board regarding installation, the Proposer/Installer shall immediately log the call, including caller’s name, address, account number if available, date and time of call, nature of problem, the action taken and the resolution. Copies of all call logs shall be forwarded to a designated Board Customer Service Manager not less than once per day using e-mail or another mutually acceptable electronic means.

Proposer must respond within one (1) hour of receiving the call and arrive at customer’s premises ready to correct any problems within three (3) hours of receiving the call, unless otherwise directed by The Board. Describe the procedures for response to customer problems.

Indicate compliance or explain the exception to the requirements.

21.13. Call Center

Proposer should provide a call center, web site, and a toll-free number that customers can call to schedule installation appointments, to ask questions concerning the project, or to report problems concerning installations. The call center should incorporate an automatic call distribution (ACD) system capable of receiving and queuing calls; routing calls to waiting agents; and collecting and reporting data on call volumes, waiting times, abandoned rates, and durations. Proposer must answer at least 85 percent of all calls within one minute. The call center should be staffed at least between the hours of 7:00 a.m. and 8:00 p.m. (GMT-4), Monday through Saturday. Indicate proposed call center hours and availability of web access for scheduling appointments and questions. The Board prefers a call center physically located within the United States of America.

21.14. Local Office, Warehousing and Materials Management

If Proposer or its subcontractors are performing MIU installations, Proposer shall be responsible for securing and maintaining an insured, staffed office and warehouse within The Board’s service territory. Should the installation contractor receive shipments materials for the project, shipments shall remain intact until The Board has had a reasonable opportunity to inspect them.

Proposer shall at all times maintain security and control of inventory of equipment in its possession, regardless of whether The Board or Proposer owns equipment. Equipment paid for by The Board prior to installation may be subject to a bailment agreement with The Board.

Describe procedures for cross-docking of materials and inventory control and audit, including frequency of inventory counting and reporting.

Indicate compliance or explain the exception to the requirements.

21.15. Automated Project Control Process

Proposer shall utilize an automated installation control and information management process, so that little or no information has to be captured or entered manually. The system should use electronic tags, bar coding, or similar means to capture equipment identification numbers. The system shall have a redundant backup process, so that all information is preserved in the event of a breakdown in the primary system (such as the loss of a handheld device). The system should enable the correction of any incorrect information pertaining to meter or service size, meter type, meter location, address, etc.

Indicate compliance or explain the exception to the requirements.

Describe in detail the installation control process.

21.16. Field Communications

The Board requires that all of the Proposer’s installers, plumbers, inspectors, and supervisory personnel be equipped with cellular phones or radios so that problems or questions can be addressed immediately, and the Installation Manager or The Board’s Project Manager can be contacted immediately, if needed.

21.17. Bonding, Background Checks

All Licensed Plumbers shall be bonded. Proposer shall subject all employees to a criminal offense background check and drug and alcohol testing as directed by The Board. Proposer shall not employ as an Installer any person who fails to meet the requirements of The Board. The Board shall be entitled to review the background check before the prospective employee is engaged and prevent any person who fails to meet requirements from working on Board projects. Indicate compliance or explain the exception to the requirements.

Describe Proposer’s ongoing random testing programs for drugs and alcohol.

21.18. Training and Inspection of Employees

Describe training and inspection procedures, and probation provisions for new employees.

21.19. Uniforms and Identification

Proposer’s field personnel shall wear easily recognizable uniforms containing the Proposer’s name, as well as prominently displayed picture identification badges containing Proposer’s name, employee name, title and signature, employee picture, and employee I.D. number at all times when performing contract work. Proposer’s employees who are no longer employed by the Proposer shall be required to return their uniforms and identification cards immediately upon termination of employment, and the Proposer shall immediately notify The Board of all such terminations and if identification cards were received from terminated employee. Indicate compliance or explain the exception to the requirements.

21.20. Items to Be Supplied by Proposer

Proposer shall supply the following components and aspects of installation: overall project management; training and direct supervision of installers; appointment scheduling; problem solving and complaint handling; and inspection, testing, and quality control.

Proposer shall furnish all supplies, materials, tools, and equipment necessary for the successful and timely completion of all meter and AMI installations as specified herein. This includes wiring and waterproof connectors between the meter and MIU in situations where the meter and/or wiring has to be replaced, and meter seal wires and seals where the meter has to be replaced.

Indicate compliance or explain the exception to the requirements.

21.21. Vehicles

Proposer shall be responsible for all vehicles it uses on the project. Proposer should provide service vehicles onsite stocked with common fittings and supplies needed for normal service restoration and/or replacement. Proposer’s vehicles shall be uniform in appearance and shall have the company logo prominently displayed on both sides of the vehicle. Temporary signs must be adhesive, not magnetic. Any employee of the Proposer or its subcontractors who drives a vehicle in connection with this project must have a valid driver’s license for the class of vehicle being driven and must be insured as set forth in The Board’s insurance requirements. Indicate compliance or explain the exception to the requirements.

21.22. Parking

The Board requires that Proposer deploy vehicles to minimize parking problems and avoid blocking any streets. Proposer is required to follow all parking laws. Proposer shall be responsible for all parking violations. Indicate compliance or explain the exception to the requirement.

21.23. Phased Start Installation Procedures Approval and Testing

Proposer shall submit detailed scheduling and installation procedures to The Board for approval within 30 days after Notice to Proceed. The procedures should be designed to optimize the work of the Installers, The Board field inspectors, and all other staff working on the project.

Prior to the commencement of full-scale installation of all MIUs, the AMI system HES, MDMS, customer portal, installation WOMS and a sufficient quantity of data collection units must be installed, tested and accepted by The Board. After this acceptance, the Proposer shall install meter and MIUs on no more than 200 accounts per week following the agreed-upon procedures. The Board will determine which accounts will be included in this Phased Start.

During the Phased Start and a period not longer than thirty (30) working days following the beginning of the Phased Start, the Board and Proposer shall evaluate the agreed-upon procedures for public notification, scheduling installations, meter and MIU installation, inspections and inspection reporting, exception processing, data transfer by the installers to The Board’s billing system, meter reading over

the system, installation data management and project control, and problem resolution to ensure they are working and effective.

Proposer and The Board shall develop a test and acceptance plan covering these procedures. The Board may require the Proposer to modify any procedures that it deems are deficient or ineffective or otherwise unacceptable to The Board. Weekly installation numbers will not be increased until project control procedures and systems are determined to be performing accurately, and the procedures have been approved by The Board.

Indicate compliance or explain the exception to the requirements.

21.24. Meter Replacement

Installer should ensure he/she is at the correct location and meter and check for running water prior to commencing meter changeout. Installer must turn off the water to the building after following The Board approved notification procedures. Installer shall then replace the meter, using new gaskets or washers. Installer shall put plastic caps on the inlet and outlet of the old meter and handle the meter with care in order to facilitate post-removal testing by The Board. All meter adapters, bushings, or other hardware necessary to install the new water meter in the consumer's existing meter setup must be furnished by the Proposer. Proposer is required to install standard connections (Board-approved meter couplings) for all ¾" through 1" meters if none exist currently. Indicate compliance or explain the exception to the requirements.

21.25. Site Conditions, Exceptions and Anomalies

If the meter is to be changed, before or at the time of installation, Proposer's installer shall inspect the existing water meter setting, including piping and control valves. In the case of any meter or plumbing irregularities, such as rotten plumbing, evidence of tampering (including but not limited to existing meters installed backwards, meters removed and replaced with connecting pipes; registers disconnected from meters; illegal connections before a meter; unmetered connections of a customer's plumbing to a service lateral, fire pipe, or water main), unsafe conditions, etc., the installer or installation supervisor shall not proceed with the installation until The Board's inspector has been notified and authorizes the installation. Indicate compliance or explain the exception to the requirements.

21.26. Old Meter Reading

Proposer shall apply procedures to ensure that any meter being replaced is read properly. If the meter is to be changed, Proposer shall provide clearly readable digital photographs of the reading on the old meter register. Installer shall take pictures of the old equipment while it is still installed when this is practical, but must include alternative procedures, as needed, to ensure that pictures legibly show the meter reading and are appropriately labeled with date, time, and premises information. Indicate compliance or explain the exception to the requirements.

21.27. Verifying Service Working

Installer shall flush water line from the customer's outside spigot if reasonably accessible after installing a new meter to ensure the meter is registering properly and verify service restoration to the entire premises. Indicate compliance or explain the exception to the requirement.

21.28. Existing Meter Reading Equipment; Wiring and Connections

If the existing meter not scheduled for replacement, and is connected to a remote read-out device, touchpad or older MIU using a three-wire cable, the installer shall inspect the cable for integrity. If the meter is designated for replacement, or the existing cable is compromised, Proposer shall also replace the existing wire cable from the meter to the MIU with three-conductor vinyl shielded cable with not less than 22-gauge solid copper wires of colors red, green and black. Connectors used outside the

premises must comply with UL-486D and IP68. Indicate compliance or explain the exception to the requirements.

21.29. Digital Photographs

The Board requires that digital photographs be taken before and after installation to provide documentation of pre-existing site conditions. Enough photographs shall be taken to clearly identify the condition of the existing meter and associated piping (if applicable), and obstructions to the work. The photographs should have accurate date and time stamps, and the file name of the photo shall include the applicable address or premises ID. Digital photographs shall be made available to The Board in a database searchable by address, premises identification number, meter number, or account number. Indicate compliance or explain the exception to the requirements.

21.30. Service Line Material Identification

Installer shall be responsible for identifying service line pipe material for both Board side and customer side piping as part of the field installation. The data shall be captured electronically on the handheld device. Indicate compliance or explain the exception to the requirements.

21.31. Completed Work Orders

Completed work orders that involve meter change-outs or register replacements shall include: meter size and meter type, verification or correction of existing meter and account information, GPS coordinates, old meter serial number, final reading on old meter, new meter number (if applicable), new meter register number, new meter or register initial reading, premises identification number, MIU ID number, date and time of installation, name of installer, composition of water service line, inspection sign-offs and notice of any problems encountered or repairs made.

Completed work orders that involve only MIU installation shall include verification or correction of existing meter and account information, GPS coordinates, premises identification number, MIU ID number, reading from meter, date and time of installation, name of installer, inspection sign-offs and notice of any problems encountered or repairs made.

Completed work orders must be accompanied by required photographs.

Indicate compliance or explain the exception to the requirements.

21.32. Dirt or Water Around Meter

For meters in outside boxes, Proposer shall be responsible for removing any dirt needed to access the meter. Dirt shall be removed such that there is a minimum of 2" clearance below the valves at the meter. Proposer shall attempt to expose connection to the service line and any piping between the service line connection and the meter to ensure that they are in a condition that will not be damaged by changing the meter. If a water meter box or vault is flooded so that the meter is fully or partially submerged, the Installer must pump it out before changing the meter. Installer must ensure that the water service is not in any way contaminated, even intermittently, by standing water in the meter vault. All waste resulting from cleaning the meter box or vault must be disposed of properly by the Proposer. The existing lid and ring, if replaced, shall remain the property of the Board. If the lids contain the Board's logo the lids will remain the property of The Board and be returned.

If grass or shrubbery is expected to impact the installation or may be damaged by the installation process, the Installer must notify The Board inspector. The Installer must return the property to the original condition to the satisfaction of the customer by replanting, re-sodding, reseeding or compensating customer. The Board reserves the right to inspect any installation and cleanup work within 7 days before payment is made to the Proposer. The Board reserves the right to inspect any installation and cleanup work within 30 days after installation in response to customer complaints of damage. Proposer shall be responsible for claims resulting from damage caused by installation.

Indicate compliance or explain the exception to the requirements.

21.33. Meter Box Lids

The AMI system should be configured to obtain the maximum signal strength from MIUs installed in meter boxes or vaults. Proposer shall replace or retrofit (e.g., by installing brackets or drilling) all meter box lids. All lid configurations must be submitted to and approved by The Board before installation. Indicate compliance or explain the exception to the requirement.

21.34. Inaccessible Meter and/or MIU

In the event a meter is obstructed or is not accessible, the Proposer will make at least three different types of attempts at any reasonable time within 30 days of encountering the inaccessible meter to notify the customer to remove the obstruction or provide access to the meter. These attempts must be documented on the work order. After three documented attempts to make the installation, the Installation Manager may request The Board Project Manager schedule the meter change-out. The Proposer shall only be paid for completed installations and is expected to provide all reasonable support in resolving difficult installation situations. Indicate compliance or explain the exception to the requirement.

21.35. Repairs

At its option, The Board may authorize the Proposer to make any valve or service line repairs necessary to install a meter to service lines or piping, order the customer to make such repairs, or undertake such repairs itself. Proposer will be compensated at the rates set forth in corresponding sections of this proposal.

Old piping per se should not be grounds for the failure of the Installer to replace a meter designated for replacement. Only when old piping is leaking or deteriorated to a point that damage to it could reasonably be expected by changing the meter will poor piping be accepted as a reason for not replacing the meter. Unless The Board's Project Manager remands the particular installation to The Board for further action, the Proposer is still required to install the meter and AMI equipment after the piping has been repaired or replaced at any time during the Installation Period.

21.36. Strainers

If there is a strainer at any installation, the Installer shall clean it and restore it. If the strainer cannot be cleaned, Installer shall replace it with a comparable strainer. Indicate compliance or explain the exception to the requirement.

21.37. Valves

If the Installer cannot shut off water using the street-side control valve (details must be documented on a work order), he shall call The Board Project Manager to arrange curb valve shut-off. If shutoff valves cannot be reopened, the Proposer shall replace such valves following Board rules, regulations and specifications, upon being authorized by The Board. Valves provided by the Proposer must conform to The Board's specifications and approved materials list. Proposer shall provide in its price proposal fixed unit pricing for valve replacement by size. Indicate compliance or explain the exception to the requirements.

Installer should use a water meter base spreader tool to change ¾"–1" water meters not on a meter yoke, horn or setter.

21.38. Service Line Damage

Proposer shall be responsible for repairing any water service lines it damages at its sole cost and expense, unless the Installation Manager has reported, prior to commencement of installation, a condition of antiquated or inferior plumbing to The Board's inspector or Project Manager and has been

authorized to proceed with the work. In the event a service line fails during or after the authorized installation, Proposer’s licensed plumber will oversee the repair work required to restore the water service line to working order. Proposer shall include in its proposal a schedule of compensation for service line repairs by foot of service line and size. The cost of this work will be reimbursed to the Proposer at the price set out in the schedule. This price will include site preparation, all labor, material, and permits as required. All work must comply with The Board’s standards for service repairs or replacement. All plumbing work other than the replacement of a water meter must be authorized by The Board and inspected by a Board field inspector and payment will be subject to Board approval. Any damage done by the Proposer outside the area and scope of the work of the contract shall be repaired or replaced at the Proposer’s sole cost and expense.
Indicate compliance or explain the exception to the requirements.

21.39. Confined Space

Confined space shall be defined in accordance with OSHA’s *Confined Spaces in Construction; Final Rule* definition as being a space that 1) is large enough and so configured that an employee can bodily enter it; 2) has limited or restricted means for entry and exit; and 3) is not designed for continuous employee occupancy. Any vault requiring entry to complete an installation that meets these criteria shall be designated and documented as confined space. Refer to section 1.1 for estimates of meters in confined spaces.

Proposer will provide documentation of the completed installation meeting criteria for confined space to The Board in order for any additional confined space charge to be invoiced.

Indicate compliance or explain the exception to the requirement.

21.40. Meter Salvage

Proposer shall scrap all replaced meters and meter box lids and credit The Board for salvage value based on unit values submitted in the Pricing Proposal. Proposer must provide auditable documentation of quantities scrapped. Indicate compliance or explain the exception to the requirement.

Indicate compliance or explain the exception to the requirement.

21.41. Disposal of Existing MIUs

Proposer shall collect and arrange for the proper disposal of all removed MIUs. Include unit cost for this in the Pricing Proposal. Proposer must provide auditable documentation of quantities scrapped. Indicate compliance or explain the exception to the requirement.

21.42. Quality Control

Proposer shall be responsible for replacing any meter, MIU, or appurtenances improperly set by its installer at no additional cost to The Board. Proposer shall correct any damage to couplings, threads, unions, or meters by use of improper tools or cross threading by an installer.

Proposer shall be responsible for correcting any leaks at the valves, couplings, or service lines that could reasonably be attributed to the meter installation if reported by The Board or customers within 30 days of installation at no additional cost to The Board.

Indicate compliance or explain the exception to the requirement.

Describe the procedures and protocol for inspecting installations, including installation by new employees, recording and reporting inspection findings, and remediating any issues discovered through inspections.

21.43. Installation Data Control and Audit Procedures

Describe in detail the proposed system for ensuring that all data pertaining to installation are correctly recorded during installation, and that all data transferred to The Board Customer Information System

(CIS) are accurate. Describe procedures for eliminating any opportunities for a meter or MIU to be associated in the HES, MDMS or the CIS with the wrong address or account number.

21.44. Installation Acceptance

Each installation will be accepted by The Board conditioned upon:

- Electronic submission of a list of completed installations containing for that installation the premises identification number, address, meter serial number, old and new meter readings, MIU serial number, MIU and meter GPS coordinates or location description, installer’s name, Proposer’s inspector’s name, and all other information relevant to the installation;
- Receipt or access to required digital photographs taken before and after installation;
- Satisfactory inspection by Proposer and The Board in the case of anomalies or if part of inspection sample;
- Confirmation that MIU ID numbers, meter register numbers, and other information have been correctly captured in the AMI HES and/or The Board’s project management database for each customer’s premises; and,
- Successful capture of at least 90 percent of the scheduled readings over 2 days for meters being read hourly or more frequently. The readings shall be gathered by The Board operating the AMI system in a normal way.
- However, if The Board finds discrepancies in the conditions of acceptance for 12 months after the date it was notified of installation, The Board shall notify the Proposer for corrective work which shall be completed by the Proposer at no cost to The Board.

Payment for installation services shall be based on accepted installations. Proposer shall provide documentation to The Board including the list of individual jobs completed, the unit price for each job, a date and time stamp showing MIU coverage, overall route network coverage, and other details to be specified.

Proposer will be responsible for installation if The Board secures an appointment or access to the meter within 30 days of receiving written or electronic notice from Proposer.

Indicate compliance or explain the exception to the requirements.

21.45. Overall System Acceptance

The Board and Proposer will conduct a Final System Acceptance Test when all MIU installation work orders provided to Proposer are completed and MIUs accepted by The Board. Final System Acceptance criteria shall include:

- Uniform System Performance - The System must provide performance that is substantially uniform throughout The Board’s service territory, defined as: within 0.25 miles of any MIU from which a standard consumption message was not received, there are not more than 20 other MIUs from which a standard consumption message was also not received.
- Register Read Performance - The system shall on the day of system acceptance testing provide meter register readings not more than 3 days old from at least 98.5% of the MIUs determined to be **available** on that day.
- Interval Data Performance - The system shall on the day of system acceptance testing provide not less than 95% of all the hourly interval readings from all of the MIUs determined to be **available** on that day, and not less than 80% of the interval reads from any one MIU.

An MIU shall be deemed **available** if it has been: (1) installed; (2) not damaged or vandalized by a third party; (3) mounted according to agreed-upon installation procedures; (4) not subject to a pending investigation or maintenance work order, and (5) its signal is not subject to unanticipated blocking (e.g., permanent or temporary structure installed after MIU installation and acceptance, vehicle parked over MIU, etc.).

Proposer should be responsible for preparing a report evaluating system acceptance parameters for review by The Board.

Except for the redundancy criteria above, final system acceptance may be by zones or groups of routes, to be agreed upon by The Board.

This performance shall be sustained for 30 days. Performance measures shall be averaged over this 30-day period. Overall system performance measurement for System Acceptance shall commence upon notification from the Proposer and will be concluded the first time the average performance measures over any consecutive 30 days meets or exceeds the performance measures. Should Final System Acceptance fail, Proposer shall fix all defects and reinitiate Final System Acceptance Test.

Indicate compliance or explain the exception to the requirements.

21.46. Payments

Proposer shall provide to The Board electronically on a monthly basis its list of newly completed installations and any authorized additional work in an itemized format.

This list shall be attached to an electronic draft invoice. The Board shall notify the Proposer of any listed items that do not meet the conditions of this section above, so that the Proposer may resolve any discrepancies. The Board may at its discretion reject the entirety of any list on which there are discrepancies in more than 10 percent of the entries. The Board shall process all other items as acceptable and arrange payment for these. Payments will be based on the price schedules submitted by the Proposer.

22 Project Management

22.1. Reports

Provide sample layouts of all anticipated reports for managing the project pertaining to schedule, budget, and performance requirements.

22.2. Project Goals and Milestones

The successful Proposer shall propose detailed goals and milestones for deliveries or accomplishments within the Project schedule established by The Board, and subject to approval of The Board. Indicate compliance or explain the exception to the requirement.

22.3. Project Management Meetings

Contract Manager shall meet with Board personnel periodically and not less than monthly to update them on progress against the project schedule. Describe the proposed meeting plan including reporting requirements, expected participants, and expected topics of meetings.

Proposer’s Project Manager and other personnel, as requested by The Board, will meet with The Board’s Project Management staff not less than bi-weekly from the time of Notice to Proceed through the project closeout. Describe the proposed meeting plan including reporting requirements, expected participants, and expected topics of meetings.

Indicate compliance or explain the exception to the requirements.

22.4. Installation Management Meetings

Proposer Installation Manager and other personnel, as requested by The Board, will meet with The Board’s Project Management staff not less than weekly from one month prior to the start of the procedural pilot through the Installation Period. Describe the proposed meeting plan including reporting requirements, expected participants, and expected topics of meetings.

22.5. Meter Reading of Non-Communicating MIUs

In the event that a Release has not met network performance requirements defined in Section 4.3 Read Success Rate, the Proposer shall obtain billing reads of the non-communicating MIUs until that Release meets the required network performance. Indicate compliance or explain the exception to the requirement.

23 Software as a Service (SaaS)

In lieu of acquiring, deploying, operating and maintaining AMI-related hardware and software at its own facilities, The Board shall procure SaaS covering the AMI HES hardware and software; Meter Data Management System, including interfaces to its CIS and other key IT systems (GIS, work order); and Customer Portal.

All data measured, created and collected by the proposed AMI system shall be property of The Board and shall not be used by the Proposer or its subcontractors for any purpose other than to deliver on its obligations of this RFP.

23.1. Term

SaaS fees would commence following the acceptance of the Pilot and continue for a minimum of five years from the date of System acceptance. The Board may at its sole option extend the contract annually for up to 15 additional years based on the price schedule provided in response to this Request for Proposal for these services.

23.2. Data Centers and Communications

Proposer shall describe the proposed method of communications between Board workstations and Proposer’s servers, including redundancy and security of those communications.

All data centers used to support The Board’s AMI system and data, including any disaster recovery data centers, shall be located in the United States.

Any third-party data centers used to support The Board’s system must comply with all of the requirements of this section. No third-party data centers shall be used without prior written permission of The Board.

Indicate compliance or explain the exception to the requirements.

23.3. Design Documents

Prior to the start of hosting service, Proposer shall submit interface and system design draft documents, as well as procedures for revising documents, in conformance with the requirements herein, for approval by The Board. Documents shall cover access by The Board and its customers, as well as proposed technical architecture, including servers, peripherals, communications devices, and the system that run on each, indicating which components would be dedicated to The Board’s project. Indicate compliance or explain the exception to the requirement.

23.4. Proposer Responsibility

Proposer shall:

- Provide access by The Board and its customers to The Board’s AMI generated data, system features and related applications.
- Configure and make available to The Board production and test environments in Proposer’s SaaS environment.
- Monitor and maintain the computing hardware required to run the applications.
- Acquire all licenses for third party products required to maintain the applications and ensure hardware and third-party software compatibility. Provide and maintain a secure file transfer (SFTP) site, which will be used to post system files and reports.
- Create or assist The Board in creating customized reports, and application programming interfaces.
- Maintain version control for third party products. Maintain third party software on supported versions. Implement upgrades and patches as required in accordance with vendor recommended schedule.

- Monitor and ensure the integrity of the interfaces between the applications and The Board’s CIS. Provide The Board with a draft test plan upon notification by The Board of intended patches or upgrades to the CIS. Test all functionality when this software is patched or upgraded.
- Monitor access to SaaS applications by The Board and its customers and respond to and troubleshoot throughput and access issues identified by the system or user interface software, and by The Board or its customers.
- Maintain data and data center security.
- Backup and archive The Board system data and restore the system and data in the event of a system crash or failure by using system backups or a disaster recovery program.
- Monitor and report Key Performance Indicators (KPIs) as defined herein.
- Provide application development services, including creating or assisting The Board in creating customized reports and application programming interfaces.
- Provide support as defined herein to transition the System to a Board defined location in the event The Board opts to cancel the SaaS agreement.

Indicate compliance or explain the exception to the requirements.

23.5. Interfaces and File Transfer

In response to a “From CIS” file requesting readings for billing, the MDMS shall generate a “To CIS” file containing the meter readings and other information as specified in the technical architecture and interface documents.

In response to a CSV, XML or comparable configuration document generated daily by The Board’s CIS, the HES, MDMS and/or Customer Portal will synchronize MIU and customer data and generate a confirmation report.

Proposer will deliver alert and tamper reports on a real-time continuous basis to a Board designated user.

Should Proposer’s software be used to accept or manage field work orders related to MIU and/or installation, Proposer shall generate a daily file of work order information to be uploaded to The Board’s CIS and asset management systems, as defined in the technical architecture and interface documents.

Indicate compliance or explain the exception to the requirements.

23.6. Database Maintenance

Proposer shall:

- Run routine diagnostics for data corruption and abnormalities, rebuild indexes, and remove duplicate records.
- Run routine checks for security flaws and other issues that could compromise database integrity.
- Run compacting and defragmentation procedures and keep database statistics up to date.
- Monitor data and log file size to minimize response time to queries and file requests.
- Run these procedures on a schedule designed to minimize interference with user access.

Indicate compliance or explain the exception to the requirements.

23.7. System Availability

The HES, MDMS and customer portal shall be available not less than 99.5% of the time measured over any month, except for scheduled upgrades and preventative maintenance. Any downtime required to fix problems with the Proposer’s SaaS environment or data center and devices shall not be considered to be scheduled maintenance and shall count as downtime. Any planned maintenance of the AMI SaaS applications shall occur after the utilities normal working hours “Available” shall mean that all of The Board’s users can gain access to and use all of the SaaS modules and applications they are authorized to

use. The cost of providing this level of service shall be incorporated in the Price Proposal. Proposer may at its option provide additional prices reflecting other levels of availability.

$$\begin{array}{l} \text{Monthly System} \\ \text{Availability} \\ \text{Percentage} \end{array} = \frac{\text{Maximum Available Minutes} - \text{Available Downtime}}{\text{Maximum Available Minutes}} \times 100$$

In the event that there is downtime in excess of the allowed downtime, Proposer shall provide a credit to The Board as per the following table.

Monthly System Availability Performance	Credit (% of Monthly SaaS Fee)
≥ 99.0% and < 99.5%	2%
≥ 98.0% and < 99.0%	4%
≥ 96.5% and < 98.0%	10%
≥ 95.0% and < 96.5%	12.5%
< 95%	30%

Credits shall be applied against the next invoice. In the event a service level default occurs after a party has given notice of termination, or The Board has made final payment to Proposer for the SaaS and no further invoices shall issue as a result, Proposer shall refund to The Board the amount of the appropriate service level credit due for the period of Default.

These credits shall be considered to be liquidated damages and not a penalty. Proposer shall acknowledge that in the event of downtime in breach of the warranty, The Board will incur damages that, while significant, may be difficult to prove with particularity. Proposer acknowledges that the liquidated damages set forth above have been negotiated at arms’ length and reflect the parties’ reasonable expectation of damages that The Board will likely incur given the circumstances known to the parties at the time this agreement was executed.

Should system availability fall below 90% over a 90-consecutive day rolling period, or below 75% over a 30-day rolling period, Proposer will, if requested, provide The Board support as needed to transition the System to a Board defined location at no cost to The Board.

Indicate compliance or explain the exception to the requirements.

23.8. Security

Describe the data center physical security provisions.

Describe the firewall and application-level security proposed.

Proposer shall supply with its proposal its current Statement on Standards for Attestation Engagements (SSAE) No. 16 or the equivalent. Indicate compliance or explain the exception to the requirement.

23.9. Response Times

During normal business hours (defined as Monday through Friday 08:00 am – 5:00 pm(GMT-4)), response time shall be within one hour of The Board reporting an inability to use the system.

Outside of normal business hours, response time shall be within four hours of The Board reporting an inability to use the system.

Indicate compliance or explain the exception to the requirements.

23.10. Problem Analysis and Resolution

Proposer shall propose procedures to report on and deal with problem analysis and resolution based on extent and criticality of the problem using a systematic problem diagnosis and decision-making model or procedure, including root cause analysis. Problem resolution shall include immediate corrective measures and where appropriate, root cause analysis and long-term preventive measures to prevent reoccurrence. An interruption in services will be the highest priority.

The Board will provide reasonable resources to assist Proposer in problem analysis.

Initial problem will be reported to The Board’s designated AMI system manager. Findings will be shared with The Board.

Indicate compliance or explain the exception to the requirements.

23.11. Scale

Initially, the system shall support 145,000 metered accounts and shall be scalable to at least 165,000.

Indicate compliance or explain the exception to the requirement.

The system should support simultaneous access by a minimum of 100 Board users.

Indicate the number of customers the Customer Web Portal can support simultaneously.

23.12. Backup and Disaster Recovery

The Board desires that Proposer maintain dual data centers so that one center shall provide secure backup for the other. Indicate the frequency at which The Board data will be synchronized to a disaster recovery database.

The recovery time requirement in the event of a system or database failures shall be 4 hours.

The recovery point requirement in the event of system or database failure shall not be more than 2 hours.

Proposer will schedule and perform a disaster recovery test not less than annually to ensure continuity of the disaster recovery process and report the results to The Board.

Indicate compliance or explain the exception to the requirements.

23.13. Reports

Proposer shall generate reports of any software patches or upgrades or updated anti-virus releases.

Proposer shall provide email notification to a list of staff provided by The Board when reports are posted to the site.

Indicate compliance or explain the exception to the requirements.

23.14. Key Performance Indicators

Proposer will provide a monthly report of the following key performance indicators for each of the software components:

- System availability as percentage of uptime
- System uptime as well as software component uptime

23.15. Opt-Out Provisions

Should The Board decide to transition the system to a Board-defined location by canceling the SaaS arrangement, Proposer will develop a Scope of Work that includes the activities to support the Opt-Out transition (“Opt-Out for Convenience”). The Board will be responsible to secure all server hardware and third-party software required to implement the system software at a Board-defined location.

Proposer shall:

- Assign a Project Manager, a Business Consultant and a Technical Consultant for up to three months as outlined in the project plan at normal professional service rates assigned to those persons.
- Modify system design documents and processes and procedures documents, including test plans, to reflect the architectural and dataflow changes and include server hardware and third-party software requirements.
- Create a data migration plan to ensure the integrity of historical data.
- Install and configure the HES, MDMS and customer portal software at The Board-defined location.
- Redirect communications of the Collectors to The Board’s HES.
- Train Board staff on proper system operations and maintenance.
 - MDMS management for a minimum of 10 Board employees or agents.
 - System software, hardware, configuration and all technical equipment maintenance for a minimum of 10 Board employees or agents.
- Provide The Board with the System Acceptance documentation transferring operational and maintenance responsibilities.

Indicate compliance or explain the exception to the requirements.

24 Alternate Network and System Monitoring and Management Services

In the case of a Board-dedicated network, The Board may choose to procure AMI network monitoring and management services. Proposer would monitor read success rates and overall MIU performance, monitor and maintain the network, including devices and communications backhaul, and deliver event, alarm and performance reports.

24.1. Term

Network and system monitoring and management services, if elected, would commence following the acceptance of the Pilot and continue for a minimum of two years from the date of System acceptance. The Board may at its sole option extend the contract annually for up to 18 additional years based on the price schedule provided as part of the Price Proposal

24.2. Proposer Responsibility

Proposer shall:

- Monitor network devices (data collectors and repeaters) and backhaul communications (in terms both of contractual and operational performance), as well as monitor for interference or poor signal to noise ratios on any licensed frequencies involved in AMI system communications, on a 24 hour x 365 day basis.
- For a Board-dedicated network, manage the contract with the backhaul communications provider(s) to secure the lowest possible backhaul cost while meeting the system performance requirements.
- Investigate any unplanned network or communications outages, anomalies or performance problems, including office-based troubleshooting and investigations of suspect components, and create work requests for field repairs. Proposer shall coordinate directly with backhaul communications supplier to resolve communications and performance problems. Proposer shall initiate trouble tickets with the responsible service provider and monitor the status until resolution.
- Share with The Board reports on any problems, including analyses, findings and resolution.
- Provide preventive and corrective maintenance for all network devices, including hardware and software.
- Deliver event and alarm reports to the appropriate Board department or resource.
- Monitor overall MIU performance communication success rates
- Monitor, manage and recommend changes as necessary for data collector communications schedules to ensure optimal system performance.
- Maintain an adequate quantity of spare network components in close proximity to The Board’s system to ensure rapid response to network problems or outages.
- Plan for and modify the network (such as adding data collectors) to maintain the system performance requirements, following change management procedures to ensure that modifications to the network are authorized, tested, and approved by The Board, properly implemented and documented.

Indicate compliance or explain the exception to the requirements.

24.3. Staffing

Provide an organization chart or listing of the staff that will support the managed services, and a brief description of their roles. These should include, but not be limited to, services manager, system engineers, and support technicians.

The Board-dedicated network infrastructure on-site maintenance shall be provided by Proposer’s local technicians or authorized subcontractors that will be dispatched by Proposer. Indicate compliance or explain the exception to the requirement.

24.4. Network Component Firmware and Software Updates

Proposer shall notify The Board prior to and following any updates. Proposer shall be responsible for applying network component firmware and software updates to the equipment in The Board’s system. Indicate compliance or explain the exception to the requirement.

24.5. Response Times

During normal business hours, response time shall be within one hour of The Board reporting an inability to use the system.

Outside of normal business hours, response time shall be within four hours of The Board reporting an inability to use the system.

Exceptions to off hours support will be when conditions warrant a safety concern, or a data collector or other network component site is not physically accessible.

Indicate compliance or explain the exception to the requirements.

Propose a severity level scheme for issue resolution.

24.6. Key Performance Indicators

Proposer will provide a monthly report of the following key performance indicators the network as a whole, network devices, and MIUs:

- System uptime
- Collector Availability as percentage of Uptime
- Backhaul communications performance, including speeds, modem resets, etc.
- Billing read (72 hour), daily read, and hourly interval read performance reports
- Redundancy report: the number of MIU transmissions received by 1, 2, 3 or more data collection devices

24.7. Opt-Out Provisions

In the case of a Board-dedicated network, should The Board decide to terminate the monitoring and management services, Proposer will develop a scope of work that includes the activities to support the opt-out transition (“Opt-Out for Convenience”). The Board will be responsible to secure all server hardware and third party software required to manage and monitor the network at a Board-defined location.

Proposer shall:

- Assign a Project Manager, a Business Consultant and a Technical Consultant for one month as outlined in the project plan at normal professional service rates assigned to those persons.
- Modify system design documents and processes and procedures documents, including test plans, to reflect the architectural and dataflow changes and include server hardware and third-party software requirements.
- Train a minimum of 10 Board employees or agents in network component and MIU monitoring functions, including office-based measures to correct problems.

Indicate compliance or explain the exception to the requirements.

PRICING TABLE INSTRUCTIONS

Proposer shall supply unit prices and related annotations that will enable The Board to reasonably determine the total life cycle cost of owning, operating, using and maintaining Proposer's system over a 20-year period from the date of Notice to Proceed. Proposer shall indicate explicitly if any of the recurring prices (e.g., for annual license fees or maintenance costs) shall be subject to an inflator, and if so, what that inflator will be.¹ Tables referenced below have been provided in Excel format in the RFP package as Attachment "G". Information required includes:

- Cost to supply and install necessary meters, transmitters, and ancillary components of the AMI system and dispose of existing equipment.
- For a Board-dedicated network, cost to supply and install AMI network components as well as cost of annual licensing and maintenance contracts.
- If Proposer proposes network management options, they shall also be included.
- Cost to provide supplemental services during installation involving configuration, repair or upgrades to meter boxes, lids and appurtenances.
- Component failure rate and replacement cost information.

Prices shall include all material, labor, shipping, tools, equipment, hardware and software, taxes, supervision, bonds, insurance, material, rental, parking, permitting, engineering certificates, indirect costs and profits to perform any unit of work. The price tables must be completed in their entirety, in accordance with the instructions below.

Proposer must respond to each line item listed. Indicate "NA" (Not Applicable) if the particular equipment described is not incorporated in Proposer's system. Proposer must include any additional equipment and services not listed in the tables below, that are required to provide a complete and working system in accordance with the technical and performance requirements of this RFP; Proposer shall augment the Excel tables by adding rows or columns to accommodate additional system components or unit costs but may not delete any row or column from the provided tables.

Indicate compliance or explain the exception to the requirements.

The Board reserves the option of accepting or rejecting individual components of each proposal as needed to best serve the needs of The Board.

¹ In its life cycle cost evaluation, The Board will discount future costs at 4.5% per annum.

25 Meters, Registers, MIUs, Lids – Supply and Installation

Proposer shall provide pricing for meters and MIUs for all meters in the pricing tables even if the indicated quantity is zero so that the price will be known in case a decision is made at a later time to replace or retrofit one of these meters.

Installation prices indicated shall be for normal installations, exclusive of repairs to or modification or replacement of service lines, meter boxes (other than the replacement or modification of lids), valves or customers' plumbing.

25.1. Retrofit Newer Meters with new MIUs, Including Labor to Replace or Modify Lidst-Out Provisions

This may include replacing a manually read register with an AMI-compatible register. The Board intends the Proposer to remove the existing meter reading device, if any, and install a new MIU. Proposer shall connect the cable coming from the meter to the new MIU using a waterproof, dust-proof and corrosion resistant connection. Specify connector proposed.

25.2. Replace Old Meters, Including Labor to Replace or Modify Lids

The Board intends that the Proposer remove the existing meter and meter reading device, if any. Proposer shall connect the cable to the MIU using waterproof, dustproof and corrosion resistant connection.

25.3. Disposal of Existing MIUs

Proposer shall be responsible for properly disposing of all removed meter reading devices such as old MIUs. If the old devices contain lithium ion batteries, Proposer shall propose the cost per unit of disposing of these properly.

25.4. Replacement Lids

Standard size meter box lids present in significant quantities, if they are not composite, shall be replaced with composite lids conforming to the Technical Requirements or may be drilled (provided they are not located areas where vehicles could travel over or park on top of them). Proposer shall indicate whether it intends to modify or replace meter box and vault lids. The cost of labor to replace or drill lids shall be included in the unit installation prices.

Metal lids removed will be returned by the Proposer to The Board.

Indicate compliance or explain the exception to the requirements.

26 Network, Software and Other Equipment and Services – Purchase Option

In the case of a Board-dedicated network, Proposer shall list and provide pricing for all other equipment and services required for a complete and working AMI system throughout The Board’s entire service territory in accordance with the technical and performance requirements outlined in this RFP. In the case of a non-dedicated network provided as a service, Proposer shall indicate network usage cost per MIU per year.

Proposer shall include estimates of site preparation and installation costs, including a “not to exceed value,” in its Price proposal.

Annual costs for SaaS shall also be entered as applicable. Annual costs shall include software licensing and maintenance fees, proposed annual equipment maintenance agreement costs and any other expected costs associated with normal system maintenance. Proposer shall include expected annual costs for rental of fixed DCU and repeater sites, if required, and expected power and backhaul communication costs. Proposer shall detail each cost item (adding additional rows to the table if necessary), rather than presenting a summary in the cell in the table. Indicate if these costs are to begin at a time other than after the first year of The Board Boardship or control. If Proposer is proposing costs that change from one year to the next because of inflation or other factors, Proposer shall explicitly state the annual adjustment factor as a percentage to be applied.

Include in this section a schedule of costs for additional training beyond the initial training required by the RFP.

For a Board-dedicated network, should they be required to achieve minimum performance levels, Proposer shall be responsible for the cost of any additional data collectors and repeaters, including installation, backhaul, annual maintenance fees and any other cost associated with installation and long-term operation, for any devices in excess of 10% of the quantities proposed in the table (not including spares).

Proposer shall indicate the number of spare parts of each system component The Board should acquire and maintain on-hand.

Indicate compliance or explain the exception to the requirements.

27 Network, Software and Other Equipment and Services – Hosting/Managed Services

Proposers should submit a Managed Services/Software-as-a-Service option for the network devices and software applications using Table C. The cost of data collectors and other network components, hardware and software, and professional services that must still be purchased by The Board under a managed services scenario shall be included in Table B. Proposer should accompany this table with a list of any services not included in its hosted and managed services and network monitoring pricing, including alternate services, and specific prices for each item not included for which it intends to levy a separate charge.

28 Additional Services

The Board may request the Proposer perform additional services if the installation or retrofit requires. Provide pricing for each service listed in the Pricing Tables and any conditions that may impact the price quoted.

29 Failure Rates

For the purposes of this RFP, component failure means the inability to reliably complete the task for which the component was designed. This definition will apply to all components including but not limited to MIUs, connectors, collectors, repeaters, AMI HES, and MDMS systems. These failures may include but are not limited to:

- Failure to reliably and accurately communicate with meters and other devices for which it was designed.
- Failure to accurately read, store, and transmit data such as meter reads, alarm codes, and other data for which it was designed to read.
- Failure to maintain adequate battery voltages adequate for normal operation.
- Failure to accept software firmware upgrades and settings.
- Failure to maintain physical integrity under the conditions it was designed to withstand.
- Failure to be immune to expected radio interference.
- Failure to maintain system security.

Proposer shall provide expected failure rates for various system components, and their associated warranty and repair costs, in the Pricing Tables. Proposer shall also provide (1) repair prices for MIUs, and (2) for a Board-dedicated network, expected maintenance and repair costs for DCUs and repeaters in the case that The Board does not avail itself of annual maintenance agreements for these components, that will give The Board a true representation of expected operating and maintenance costs. Indicate battery change costs in the table. Specify whether the battery change cost estimate includes labor. These costs shall be included in The Board's evaluation of total system costs.

Proposer shall indicate the expected life in service of the system components if other than 20 years. Proposer shall provide explanation of any underlying assumptions necessary to explain these numbers. If any proposed costs refer to a "list" price, or "retail" price, Proposer shall explicitly state the current "list" or "retail" price.

Indicate compliance or explain the exception to the requirements.

Sewerage and Water Board of New Orleans
Request for Proposals
“Provide Advanced Metering Infrastructure, Meters, and Systems”
“February 4, 2022”

Attachment “B”
Proposal Cover Sheet

Proposals will be received until (11:00) AM, Local Time February 4, 2022 to the Procurement Department RM 133 at 625 St. Joseph St., New Orleans, LA 70165 . After (11:00) A.M. of the same day and date, proposals will be publicly opened and read.

PROPOSAL OF _____

ADDRESS _____

DATE _____

Procurement Department

Attention: Erin Weaver, Purchasing Agent, eweaver@swbno.org

The undersigned hereby agrees to furnish all materials, tools, equipment, insurance and labor to perform all services required for the following project:

Provide Advanced Metering Infrastructure, Meters, and Systems

as set forth in the following Contract Documents:

1. Notice to Proposers
3. Proposal Forms with Attachments
4. Agreement
5. The following enumerated addenda: _____ receipt of which is hereby acknowledged.

To achieve a uniform review process and obtain the maximum degree of comparability, it is required that the proposals be organized in the manner specified in the table below:

Required Element	Included
TechnicalProposal_ProposerName	
* Use Attachment “B” Proposal Cover Sheet	
* Table of Contents clearly identifying the materials by section, page number & tabs with search enabled	
CostProposal_ProposerName	
* Use Attachment “G” Cost Proposal	
RequiredAttachments_ProposerName	

* Use Attachment "C" Economically Disadvantaged Business Participation Summary Sheet (Along with signed correspondence from DBE)	
* Use Attachment "E" Reference Tables	
* Use Attachment "F" AMI Project List	
* Use Attachment "J" Transmission Characteristics	
* Use Attachment "K" Compatibility with Different Meter Registers	
* Use Attachment "L" Convicted Felon Affidavit	
* Use Attachment "M" Conflict of Interest Disclosure Affidavit	
* Use Attachment "N" Non-Solicitation Affidavit	

The undersigned declares that the only persons or parties interested in this proposal as principals are those named herein; that this proposal is made without collusion of any kind with any other person, firm, association or corporation; that the undersigned has carefully examined the site of the proposed work, and proposes, and agrees, if this proposal is accepted, to do all the work and furnish all the services specified in accordance with the requirements of the Contract Documents and to accept as full compensation therefore the total amount of the prices herein proposed, subject to any mutually agreed upon amendments.

The undersigned agrees that the proposal is firm until time of award.

The undersigned agrees to execute the Agreement and Affidavit and furnish to The Board all insurance certificates and performance bond (if applicable) required for the project within fifteen (15) calendar days after receiving notice of award from The Board.

The undersigned further agrees that the work will begin on the date specified in the Notice to Proceed, projected to be on or about June, 2022 and shall be diligently prosecuted at such rate and in such manner as, in the opinion of The Board's Representative is necessary for the prosecution of the work within the times specified in the Agreement, it being understood that time is of the essence.

The price for performance of all services in accordance with the Contract Documents is based on the unit (or other costs) proposed and accepted after contract negotiations.

All supplemental information requested is enclosed or presented in a separate sealed box or envelope.

(SIGNATURE)

(Typed Name and Title)

THE ATTACHED PROPOSER'S ORGANIZATION SHEET MUST BE COMPLETED TO INDICATE WHETHER BIDDER IS AN INDIVIDUAL, PARTNERSHIP, ETC.

PROPOSER'S ORGANIZATION

PROPOSER IS:

AN INDIVIDUAL

Individual's Name: _____

Doing business as: _____

Address: _____

Telephone No.: _____ Fax No.: _____

A PARTNERSHIP

Firm Name: _____

Address: _____

Name of person authorized to sign: _____

Title: _____

Telephone No.: _____ Fax No.: _____ Email: _____

A LIMITED LIABILITY COMPANY

Company Name: _____

Address: _____

Name of person authorized to sign: _____

Title: _____

Telephone No.: _____ Fax No.: _____ Email: _____

A CORPORATION

IF PROPOSAL IS BY A CORPORATION, THE CORPORATE RESOLUTION MUST BE SUBMITTED WITH PROPOSAL.

Corporation Name: _____

Address: _____

State of Incorporation: _____

Name of person authorized to sign: _____

Title: _____

Telephone No.: _____ Fax No.: _____ Email: _____

IF RESPONSE IS BY A JOINT VENTURE, ALL PARTIES TO THE PROPOSAL MUST COMPLETE THIS FORM.

**CORPORATE
RESOLUTION**

A meeting of the Board of Directors of _____ a
corporation organized under the laws of the State of _____ and
domiciled in _____ was held this _____ day _____, 20__ and
was attended by a quorum of the members of the Board of Directors.

The following resolution was offered, duly seconded and after discussion was unanimously adopted by said
quorum:

BE IT RESOLVED, that _____ is hereby
authorized to submit proposals and execute agreements on behalf of this corporation with the
Sewerage and Water Board of New Orleans ("SWBNO").

BE IT FURTHER RESOLVED, that said authorization and appointment shall remain in full force and effect, unless
revoked by resolution of this Board of Directors and that said revocation will not take effect until the Purchasing
Director of SWBNO, shall have been furnished a copy of said resolution, duly certified.

I, _____, hereby certify that I am the Secretary of _____, a
corporation created under the laws of the State of _____ domiciled in _____;
that the foregoing is a true and exact copy of a resolution adopted by a quorum of the Board of Directors of
said corporation at a meeting legally called and held on the ____ day of _____ 20____, as said
resolution
appears of record in the Official Minutes of the Board of Directors in my
possession.

This _____ day of _____, 20__

SECRETARY

Sewerage and Water Board of New Orleans
Request for Proposals
“Provide Advanced Metering Infrastructure, Meters, and Systems”
“February 4, 2022”

Attachment “C”
Economically Disadvantaged Business Participation Summary Sheet

Attachment C
ECONOMICALLY DISADVANTAGED BUSINESS PARTICIPATION SUMMARY SHEET
Minimum Percentage Goal Participation for this Contract is 7%

Contract Name: RFP Provide Advanced Metering Infrastructutre, Meters, and Systems

Name and Address of Disadvantaged Business Enterprise Company	Name of Contact Person	Scope of Work to be Performed	Percentage of Work to be Performed

THIS FORM MUST BE COMPLETED AND SUBMITTED AT THE TIME OF RFQ SUBMISSION, ALONG WITH SIGNED CORRESPONDENCE FROM SLD BE(s) ON THEIR LETTERHEAD REAFFIRMING NEGOTIATED TERMS. FAILURE TO DO SO WILL RENDER THE BID NON-RESPONSIVE.

NOTE: Signature required even if judged NOT APPLICABLE by the BIDDER

Prime Representative Name: _____

Print Name

Prime Signature: _____

Signature

Prime Company's Name: _____

Date: _____

Prime Address: _____

E-mail: _____

Telephone Number: _____

Request for Proposals
“Provide Advanced Metering Infrastructure, Meters, and Systems”
“February 4, 2022”

Attachment “D”
Sample Contract for: Provide Advanced Metering Infrastructure, Meters, and Systems

PROFESSIONAL SERVICES AGREEMENT
BETWEEN
SEWERAGE AND WATER BOARD OF NEW ORLEANS
AND

NAME OF CONTRACTOR

RFQ/RFP NUMBER

TITLE OF RFQ/RFP

THIS PROFESSIONAL SERVICES AGREEMENT (the “**Agreement**”) is entered into by and between the Sewerage & Water Board of New Orleans, represented by **GHASSAN KORBAN, EXECUTIVE DIRECTOR** (the “**Board**”), and **NAME OF CONTRACTOR**, represented by **NAME AND TITLE OF INDIVIDUAL INDICATED IN PROOF OF SIGNING AUTHORITY** (the “**Contractor**”). The Board and the Contractor may sometimes be collectively referred to as the “**Parties**.” The Agreement is effective as of the date of execution by the Board (the “**Effective Date**”).

RECITALS

WHEREAS, on **DATE OF RFQ**, the Board issued a request for proposals **RFQ NUMBER** seeking qualified persons to provide professional services including **SHORT DESCRIPTION OF SERVICES** (the “**RFQ**”);

WHEREAS, the Contractor submitted a proposal dated **DATE OF PROPOSAL**, and the Board has selected the Contractor to perform the professional services described in the RFQ.

WHEREAS, on **DATE OF RFP**, the Board issued a request for proposals **RFP NUMBER** to qualified contractors under the RFQ to provide professional services including **SHORT DESCRIPTION OF SERVICES** (the “**RFP**”); and

WHEREAS, the Contractor submitted a proposal dated **DATE OF PROPOSAL**, and the Board has selected the Contractor to perform the professional services described in the RFP.

WHEREAS, on **DATE OF RFP**, the Board issued a request for proposals **RFP NUMBER** seeking qualified persons to provide professional services including **SHORT DESCRIPTION OF SERVICES** (the “**RFP**”); and

WHEREAS, the Contractor submitted a proposal dated **DATE OF PROPOSAL**, and the Board has selected the Contractor to perform the professional services described in the RFP.

NOW THEREFORE, the Board and the Contractor agree as follows:

ARTICLE I - THE CONTRACTOR’S OBLIGATIONS

A. Services. The Contractor will, in accordance with the schedule approved by the Board:

1. INSERT SCOPE OF SERVICES, TASKS, DELIVERABLES, ELSE IN ACCORDANCE WITH EITHER THE RFQ/RFP OR CONTRACTOR’S PROPOSAL;

2. Perform all other services and obligations as set forth in any the following documents that are incorporated fully into this Agreement: the RFQ AND/OR RFP; the Contractor’s proposal dated DATE OF PROPOSAL.

3. Submit complete and accurate invoices, maintain records, submit to audits and inspections, maintain insurance, and perform all other obligations of the Contractor as set forth in this Agreement;

4. Promptly correct any errors or omissions and any work deemed unsatisfactory or unacceptable by the Board, at no additional compensation;

5. Monitor, supervise, and otherwise control and be solely responsible for all persons performing work on its behalf;

6. Perform all requirements set forth in La. R.S. 38:2192, including without limitation the payment of any associated costs, and submit a copy of any recorded documents to the Board within 30 days after the approval of the associated plan change or amendment; and

7. Cooperate with the Board and any person performing work for the Board.

The Board's officers and employees are not authorized to request or instruct the Contractor to perform any work beyond the scope or duration of this Agreement in the absence of an executed amendment to this Agreement.

B. Standards. The Contractor, and any person performing work on its behalf, will perform all work under this Agreement in accordance with **IDENTITY ANY PROFESSIONAL OR OTHER STANDARDS YOU ARE AWARE OF AND THAT ARE SPECIFICALLY APPLICABLE TO THESE SERVICES.**

C. Compliance with Laws. The Contractor, and any person performing work on its behalf, will comply with all applicable federal, state, and local laws and ordinances, including, without limitation, **IDENTIFY ANY LEGAL REQUIREMENTS THAT YOU ARE AWARE OF AND THAT ARE SPECIFICALLY APPLICABLE TO THESE SERVICES.**

D. Schedule.

1. The Contractor will perform all work under this Agreement according to the following schedule:

INSERT APPLICABLE SCHEDULE

The Contractor will submit a proposed progress schedule to the Board within 14 calendar days of receiving written authorization to proceed from the Board. At a minimum, the proposed progress schedule must include the following information and be arranged so the actual progress can be shown as work is completed: **INSERT ANY APPLICABLE SCHEDULE REQUIREMENTS.**

2. The Board has the sole right to approve, reject, or require changes to all schedules relating to the performance of this Agreement, including, without limitation, any proposed progress schedule and any requests for modifications.

3. The Contractor acknowledges and agrees that time is of the essence in the performance of this Agreement.

E. Invoices.

1. The Contractor will submit **INSERT CHOICE BETWEEN MONTHLY – QUARTERLY – OR OTHER** invoices for work performed under this Agreement to the Board no later than 10 calendar days following the end of the period covered by the invoice. Untimely invoices may result in delayed payment for which the Board is not liable. At a minimum, each invoice must include the following information and supporting documentation: **LIST INFORMATION AND DOCUMENTS REQUIRED TO BE SUBMITTED WITH INVOICE.**

2. All invoices must be signed by an authorized representative of the Contractor under penalty of perjury attesting to the validity and accuracy of the invoice.

3. The Board may require changes to the form of the invoice and may require additional supporting documentation to be submitted with invoices.

F. Records and Reporting.

1. The Contractor will maintain all books, documents, papers, accounting records, invoices, materials records, payrolls, work papers, personnel records, and other evidence pertaining to the performance of services under this Agreement, including, without limitation, of costs incurred through the

later of *[3 years under Public Records Law unless a different number is required by specific law or policy/regulation]* years from: (a) the completion of this Agreement (including any renewal or extension periods); or (b) from the resolution of any dispute relating to the Agreement. If this Agreement is terminated for any reason, the Contractor will deliver to the Board all plans and records of work compiled through the date of termination.

2. The Contractor will identify any reporting requirements, including the frequency, method and contents.

3. The Contractor is solely responsible for the relevance and accuracy of all items and details included in any reports relating to the work performed under this Agreement, regardless of any review by the Board.

G. Audit and Inspection.

1. The Contractor will submit to any Board audit, inspection, and review and, at the Board's request, will make available all documents relating or pertaining to this Agreement maintained by or under the control of the Contractor, its employees, agents, assigns, successors and subcontractors, during normal business hours at the Contractor's office or place of business in Louisiana. If no such location is available, the Contractor will make the documents available at a time and location that is convenient for the Board.

2. Administrative and financial records shall be made and kept by the contractor in accordance with generally accepted accounting principles and practices. Records shall include, but are not limited to, accounting records, daily reports, change order requests, correspondences and subcontract files (hard copies as well as computer readable data, if it can be made available). Records must be retained and made available upon request for a minimum of five (5) years following completion or formal acceptance of the contracted project

3. The Contractor will abide by all provisions of Board Code § 2-1120, including but not limited to Board Code § 2-1120(12), which requires the Contractor to provide the Office of Inspector General with documents and information as requested. Failure to comply with such requests shall constitute a material breach of the contract. The Contractor agrees that it is subject to the jurisdiction of the Orleans Parish Civil District Court for purposes of challenging a subpoena.

H. Insurance.

1. Except as otherwise noted, always during this Agreement or the performance of work required by this Agreement, the Contractor will maintain the following insurance in full force and effect for the duration of the work under this Agreement:

a. Minimum Requirements:

Contractor shall maintain at his own expense and in good standing, such insurance as will protect the Board, the City of New Orleans, their officers, officials, employees, boards, commissions, and volunteers, and the Contractor himself, from and against any and all claims or damages to public or private property or personal injury, including death, to employees or the public, which may arise from any operations under this contract or any of its subcontracts. The coverage shall contain no special limitations on the scope of protection afforded to the Board or the City. Both the Board and the City shall appear as "Additional Insured" on all Commercial General Liability and Business Automobile Insurance. Any failure to comply with reporting provisions of the policy shall not affect coverage provided to the Board and the City, their officers, officials, employees, boards and commissions, and volunteers. The Contractor's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.

If this transaction requires the Contractor or subcontractor's employees to enter the Board's facilities or job sites, a senior employee of the Contractor and/or any subcontractor will review the Board's Safety Orientation Notice (Notice), and will explain this Notice to every employee who will enter Board facilities. This Notice is included as a part of the specifications for this contract.

Contractor and its insurers shall agree to waive all rights of subrogation, except on their Professional Liability Policy, against the Board, the City, and their officers, officials, employees, boards and commissions, and volunteers for losses arising from work performed by the Contractor for the Board and the City. Each insurance policy required by this contract shall be endorsed to state that coverage shall not be suspended, voided or canceled by either party, or reduced in coverage or in limits except after thirty (30) days prior written notice by certified mail, return receipt requested, that has been given to the Risk Manager of the Board. In general, insurance is to be placed with insurers with a Best's rating of at least A-, although this requirement may be reviewed and modified by the Risk Manager of the Board in the best interest of the Board. The Risk Manager may also consider performing such review upon written request from Contractor. Contractor shall furnish the Board with certificates of insurance affecting coverage required by this contract. The certificates for each insurance policy are to be signed by a person authorized by that insurer to bind coverage on its behalf.

The certificates of insurance are to be received and approved by the Risk Manager of the Board before work commences. In the event of a claim, Contractor shall make applicable insurance policies available for review by the Board. Contractor shall retain its rights to restrict disclosure of Contractor's proprietary information.

The following are the types of insurance policies and the minimum limits of insurance coverage which shall be maintained by Contractor during the entire term of the Contract:

1. WORKER'S COMPENSATION AND EMPLOYER'S LIABILITY

INSURANCE, as will protect him from claims under Worker's Compensation Laws. The Worker's Compensation section of the policy shall afford statutory limits and be in accordance with all Louisiana Worker's Compensation Statutes. The Employers' Liability limit shall not be less than \$1,000,000 each accident for bodily injury by accident and \$1,000,000 each employee/policy limit for bodily injury by disease. Whenever any vessel or floating equipment is involved, the insurance shall afford coverage under the Federal Longshoremen's and Harbor Worker's Act, and shall also include protection for injuries and/or death to Master's and Members of the crews of vessels with statutory limits in accordance with the Jones Act.

2. COMMERCIAL LIABILITY INSURANCE, with a limit of not less than \$1,000,000 each occurrence and \$2,000,000 general aggregate, including Explosion, Collapse, and Underground Property Damage Hazards. The Products-Completed Operations aggregate limit shall not be less than \$1,000,000 each occurrence. The general aggregate limit shall apply separately to this project.

3. BUSINESS AUTOMOBILE INSURANCE, which shall cover liability arising from any auto (including owned, hired, and non-owned vehicle). The limit of liability shall not be less than \$1,000,000 combined single limit each

accident for all injuries, property damage and/or death resulting from any one occurrence.

b. Other Insurance Provisions. The insurance policies are to contain, or be endorsed to contain, the following provisions:

- i. Additional Insured Status. **The Contractor will provide, and maintain current, a Certificate of Insurance naming The Board of New Orleans, its departments, political subdivisions, officers, officials, employees, and volunteers are to be covered as "Additional Insureds"** on the CGL policy with respect to liability arising out of the performance of this agreement. General liability coverage can be provided in the form of an endorsement to the Contractor's insurance (at least as broad as ISO Form CG 20 10 11 85 or both CG 20 10 and CG 20 37 forms if later revisions used). The Certificate of Insurance, as evidence of all required coverage, should name the Sewerage and Water Board of New Orleans Risk Manager as Certificate holder and be delivered via U.S. Mail to _____, New Orleans, LA _____.
- ii. Primary Coverage. For any claims related to this contract, **the Contractor's insurance coverage shall be primary** insurance as respects the Board, its departments, political subdivisions, officers, officials, employees, and volunteers. Any insurance or self-insurance maintained by the Board shall be non-contributing to the Contractor's coverage.
- iii. Claims Made Policies. If applicable, the retroactive date must be shown and must be before the date of the contract or the beginning of work. If the coverage is canceled or non-renewed, and not replaced with another claims-made policy, Contractor must purchase "extended reporting" coverage for minimum of 5 years after the termination of this agreement
- iv. Waiver of Subrogation. **The Contractor and its insurers agree to waive any right of subrogation** which any insurer may acquire against the Board by virtue of the payment of any loss under insurance required by this contract.
- v. Notice of Cancellation. Each insurance policy required above shall provide that **coverage shall not be canceled, except with prior notice to the Board of no less than 60 days.**
- vi. Acceptability of Insurers. Insurance is to be placed with **insurers licensed and authorized to do business in the State of Louisiana with a current A.M. Best's rating of no less than A: VII**, unless otherwise acceptable to the Board.

2. The Contractor will provide the Board's Risk Manager (at Sewerage and Water Board of New Orleans Attn: Risk Manager, _____, New Orleans, LA 70165 – Ref.: **INSERT TITLE AND NUMBER OF RFQ OR RFP**) within 10 calendar days of the Effective Date and at any other time at the Board's request the following documents:

- a. Proof of coverage for each policy of insurance required by this Agreement;
- b. Copy of the fully executed Agreement;
- c. Copies of all policies of insurance, including all policies, forms, and endorsements; and
- d. Statements disclosing any policy aggregate limit.

3. Without notice from the Board, the Contractor will:

- a. Replenish any policy aggregate limit that is impaired before commencement of any work or continuation of any work under this Agreement;
- b. Substitute insurance coverage acceptable to the Board within 30 calendar days if any insurance company providing any insurance with respect to this Agreement is declared bankrupt, becomes insolvent, loses the right to do business in Louisiana, or ceases to meet the requirements of this Agreement; and
- c. Notify the Board's Risk Manager in writing within 48 hours of its receipt of any notice of non-renewal, cancellation, or reduction in coverage or limits affecting any policy of insurance maintained under this Agreement.

I. Indemnity.

1. To the fullest extent permitted by law, the Contractor will indemnify, defend, and hold harmless the Board, its agents, employees, officials, insurers, self-insurance funds, and assigns (collectively, the "**Indemnified Parties**") from and against any and all claims, demands, suits, and judgments of sums of money accruing against the Indemnified Parties: for loss of life or injury or damage to persons or property arising from or relating to any act or omission or the operation of the Contractor, its agents, subcontractors, or employees while engaged in or in connection with the discharge or performance of any work under this Agreement; and for any and all claims and/or liens for labor, services, or materials furnished to the Contractor in connection with the performance of work under this Agreement.

2. Limitation. The Contractor's indemnity does not extend to any loss arising from the gross negligence or willful misconduct of any of the Indemnified Parties, provided that neither the Contractor nor any of its agents, subcontractors, or employees contributed to such gross negligence or willful misconduct.

3. Independent Duty. The Contractor has an immediate and independent obligation to, at the Board's option: (a) defend the Board from or (b) reimburse the Board for its costs incurred in the defense of any claim that actually or potentially falls within this indemnity, even if: (a) the allegations are or may be groundless, false, or fraudulent; or (b) the Contractor is ultimately absolved from liability.

4. Expenses. Notwithstanding any provision to the contrary, the Contractor shall bear the expenses including, but not limited to, the Board's reasonable attorney fees and expenses, incurred by the Board in enforcing this indemnity.

ARTICLE II - REPRESENTATIONS AND WARRANTIES

A. The Contractor represents and warrants to the Board that:

1. The Contractor, through its duly authorized representative, has the full power and authority to enter into and execute this Agreement;

2. The Contractor has the requisite expertise, qualifications, staff, materials, equipment, licenses, permits, consents, registrations, and certifications in place and available for the performance of all work required under this Agreement;

3. The Contractor is bonded, if required by law, and fully and adequately insured for any injury or loss to its employees and any other person resulting from the actions or omissions of the Contractor, its employees, or its subcontractors in the performance of this Agreement;

4. The Contractor is not under any obligation to any other person that is inconsistent or in conflict with this Agreement or that could prevent, limit, or impair the Contractor's performance of this Agreement;

5. The Contractor has no knowledge of any facts that could prevent, limit, or impair the performance of this Agreement, except as otherwise disclosed to the Board and incorporated into this Agreement;

6. The Contractor is not in breach of any federal, state, or local statute or regulation applicable to the Contractor or its operations;

7. Any rate of compensation established for the performance of services under this Agreement are no higher than those charged to the Contractor's most favored customer for the same or substantially similar services;

8. The Contractor has read and fully understands this Agreement and is executing this Agreement willingly and voluntarily; and

9. All of the representations and warranties in this Article and elsewhere in this Agreement are true and correct as of the date of this Agreement by the Contractor and the execution of this Agreement by the Contractor's representative constitutes a sworn statement, under penalty of perjury, by the Contractor as to the truth of the foregoing representations and warranties.

B. Convicted Felon Statement. The Contractor complies with Board Code § 2-8(c) and no principal, member, or officer of the Contractor has, within the preceding 5 years, been convicted of, or pled guilty to, a felony under state or federal statutes for embezzlement, theft of public funds, bribery, or falsification or destruction of public records.

C. Non-Solicitation Statement. The Contractor has not employed or retained any company or person, other than a bona fide employee working solely for it, to solicit or secure this Agreement. The Contractor has not paid or agreed to pay any person, other than a bona fide employee working for it, any fee, commission, percentage, gift, or any other consideration contingent upon or resulting from this Agreement.

D. Conflict of Interest. The Contractor expressly acknowledges that this Agreement is for the performance of professional legal services on behalf of the Client, the Board. Therefore, Contractor further acknowledges that it is bound by the Louisiana Rules of Professional Conduct. Contractor represents that it has performed a conflict check and affirms that no actual, perceived or potential conflicts exist. Contractor acknowledges that it has an ongoing obligation to identify potential conflicts and to decline representation which presents a conflict. Any request for a conflict waiver must be presented to the Board Attorney in writing in accordance with the Louisiana Rules of Professional Conduct. Nevertheless, the Board Attorney is under no obligation to approve conflict waiver requests.

E. Employee Verification. The Contractor swears that (i) it is registered and participates in a status verification system to verify that all employees in the State of Louisiana are legal citizens of the United States or are legal aliens; (ii) it shall continue, during the term of this Agreement, to utilize a status verification system to verify the legal status of all new employees in the State of Louisiana; and (iii) it shall require all subcontractors to submit to the Contractor a sworn affidavit verifying compliance with items (i) and (ii) above. Any violation of the provisions of this paragraph may subject this Agreement to termination and may further result in the Contractor being ineligible for any public contract for a period of 3 years from the date the violation is discovered. The Contractor further acknowledges and agrees that it shall be liable for any additional costs incurred by the Board occasioned by the termination of this Agreement or the loss of any license or permit to do business in the State of Louisiana resulting from a violation of this provision. The Contractor will provide to the Board an affidavit attesting to the above provisions if requested by the Board. The Board may terminate this Agreement for cause if the Contractor fails to provide such the requested affidavit or violates any provision of this paragraph.

Employee Verification. The Contractor swears that (i) it is in compliance with La. R.S. 38:2212.10, and is registered and participates in a status verification system to verify that all employees in the State of Louisiana are legal citizens of the United States or are legal aliens; (ii) it shall continue, during the term of this Agreement, to utilize a status verification system to verify the legal status of all new employees in the State of Louisiana; and (iii) it shall require all subcontractors to submit to the Contractor a sworn affidavit verifying compliance with items (i) and (ii) above. Any violation of the provisions of this paragraph may subject this Agreement to termination and may further result in the Contractor being

ineligible for any public contract for a period of 3 years from the date the violation is discovered. The Contractor further acknowledges and agrees that it shall be liable for any additional costs incurred by the Board occasioned by the termination of this Agreement or the loss of any license or permit to do business in the State of Louisiana resulting from a violation of La. R.S. 38:2212.10. The Contractor will provide to the Board an affidavit attesting to the above provisions if requested by the Board. The Board may terminate this Agreement for cause if the Contractor fails to provide such the requested affidavit or violates any provision of this paragraph.

F. The Contractor acknowledges that the Board is relying on these representations and warranties and Contractor's expertise, skill, and knowledge and that the Contractor's obligations and liabilities will not be diminished by reason of any approval by the Board.

ARTICLE III - THE BOARD'S OBLIGATIONS

A. **Administration.** The Board will:

1. Administer this Agreement through the **NAME OF THE BOARD DEPARTMENT RESPONSIBLE FOR MONITORING THIS AGREEMENT**;

2. Provide the Contractor **IDENTIFY ANY SPECIFIC DOCUMENTS TO BE PROVIDED** and other documents deemed necessary for the Contractor's performance of any work required under this Agreement;

3. Provide access to Department personnel to discuss the required services during normal working hours, as requested by the Contractor; and

4. **INSERT ANY ADDITIONAL OBLIGATIONS FOR THE BOARD.**

B. **Payment.** The Board will make payments to the Contractor at the rate of compensation established in this Agreement based upon the Contractor's certified invoices, except:

1. The Board's obligation to pay is contingent upon the Contractor's: (a) submission of a complete and accurate invoice; (b) satisfactory performance of the services and conditions required by this Agreement;

2. The Board, in its discretion, may withhold payment of any disputed amounts, and no interest shall accrue on any amount withheld pending the resolution of the dispute;

3. The Board may set off any amounts due to the Contractor against any amounts deemed by the Board to be owed to the Board by the Contractor pursuant this Agreement; and

4. All compensation owed to the Contractor under this Agreement is contingent upon the appropriation and allocation of funds for work under this Agreement by the Board.

5. The Board is not obligated under any circumstances to pay for any work performed or costs incurred by the Contractor that: exceed the maximum aggregate amount payable established by this Agreement; are beyond the scope or duration of this Agreement; arise from or relate to the any change order within the scope of the Agreement; are for services performed on days on which services were suspended, due to circumstances beyond the control of the Board, and no work has taken place; arise from or relate to the correction of errors or omissions of the Contractor or its subcontractors; or the Board is not expressly obligated to pay under this Agreement.

6. If this Agreement is terminated for any reason, the Board will pay the Contractor only for the work requested by the Board and satisfactorily performed by the Contractor through the date of termination, except as otherwise provided in this Agreement.

ARTICLE IV - COMPENSATION

A. **Rate of Compensation.**

1. The Board will pay the Contractor in accordance with the following rate: **INSERT RATE OF COMPENSATION.**

2. This Agreement does not guarantee any amount of work or compensation except as specifically authorized by the Board in accordance with the terms and conditions of this Agreement.

3. The stated compensation is inclusive, and includes no additional amounts for, the Contractor's costs, including without limitation all expenses relating to overhead, administration, subcontractors, employees, bid preparation, bonds, scheduling, invoicing, insurance, record retention, reporting, inspections, audits, the correction of errors and omissions, or minor changes within the scope of this Agreement. The Board will not consider or be obligated to pay or reimburse the Contractor any other charges or fees and the Contractor will not be entitled to any additional compensation or reimbursement, except otherwise specifically provided in the Agreement.

4. The Contractor immediately will notify the Board in writing of any reduction to the rate of compensation for its most favored customer and the rate of compensation established by this Agreement automatically will adjust to the reduced rate effective as of the effective date of the reduction for the most favored customer.

B. Maximum Amount. The maximum aggregate amount payable by the Board under this Agreement is \$**INSERT NUMERICAL MAXIMUM DOLLAR AMOUNT AND ALSO SPELL IT OUT TO AVOID CONFUSION OR NUMERICAL TYPOS.**

ARTICLE V - DURATION AND TERMINATION

A. Initial Term. A contract period up to four (4) years is anticipated with initiation of the contract period following approval by the SWBNO Board of Directors and issuance of Notice to Proceed. The tentative date is scheduled for (date) and will end (date). However, SWBNO reserves the right to, at its discretion and with the agreement of the selected contractor to extend the contract for one (1) additional year if needed. The term of the base contract and any extensions shall not exceed five (5) years

B. Termination for Convenience. The Board may terminate this Agreement at any time during the term of the Agreement by giving the Contractor written notice of the termination at least 30 calendar days before the intended date of termination.

C. Termination for Non-Appropriation. This Agreement will terminate immediately in the event of non-appropriation of funds enough to maintain this Agreement without the requirement of notice and the Board will not be liable for any amounts beyond the funds appropriated and encumbered for this Agreement.

D. Termination for Cause. The Board may terminate this Agreement immediately for cause by sending written notice to the Contractor. "Cause" includes without limitation any failure to perform any obligation or abide by any condition of this Agreement or the failure of any representation or warranty in this Agreement, including without limitation any failure to comply with the requirements of the Board's Disadvantaged Business Enterprise program and any failure to comply with any provision of Board Code § 2-1120 or requests of the Office of Inspector General. If a termination for cause is subsequently challenged in a court of law and the challenging party prevails, the termination will be deemed to be a termination for convenience effective 30 days from the date of the original written notice of termination for cause was sent to the challenging party; no further notice will be required.

E. Suspension. The Board may suspend this Agreement at any time and for any reason by giving 2 business day's written notice to the Contractor. The Contractor will resume work upon 5 business day's written notice from the Board.

ARTICLE VI – DECLARED DISASTER

A. Declaration. During the declaration of an emergency by federal, state, and/or local government, the Contractor shall provide support to the Board on an as-needed and task-order-driven basis. Because of the uncertainty of the scale and/or type of emergency, the services to be provided by the Contractor will vary and may need to be adjusted as needs are identified. The Contractor may be requested to provide a range of services. Said services may need to be rendered on a continual basis (24 hours / 7 days per week) during the declaration of an emergency.

B. Task Order. Notification and Personnel. Prior or during the declaration of an emergency, the Board will notify the Contractor via task order if the Board requires the Contractor's support. Upon activation by task order, the Contractor will provide the Board with contact information of personnel assigned to the task order; and coordinate with the Board to identify any personnel available to meet the Board's needs.

C. Purchase Order. Once services are identified, the Board will issue a purchase order to the Contractor. The Board will issue a subsequent purchase order in case of additional needs for services or may issue a modified purchase order if changes are made to the initial purchase order.

D. The Contractor will ensure that the Board is provided with timely and accurate reports and other documentation, as requested.

ARTICLE VII - PERFORMANCE MEASURES

A. Factors. The Board will measure the performance of the Contractor according to the following non-exhaustive factors: work performed in compliance with the terms of the Agreement; staff availability; staff training; staff professionalism; staff experience; customer service; communication and accessibility; prompt and effective correction of situations and conditions; timeliness and completeness of submission of requested documentation (such as records, receipts, invoices, insurance certificates, and computer-generated reports).

B. Failure to Perform. If the Contractor fails to perform according to the Agreement, the Board will notify the Contractor. If there is a continued lack of performance after notification, the Board may declare the Contractor in default and may pursue any appropriate remedies available under the Agreement and/or any applicable law. In the event of a notification of default, the Board will invoice the defaulting contractor for any increase in costs and other damages sustained by the Board. Further, the Board will seek full recovery from the defaulting contractor.

ARTICLE VIII – LIVING WAGES

To the fullest extent permitted by law, the Contractor agrees to abide by Board Code sections 70-801, *et seq.*, which requires payment of a wage to covered employees equal to the amounts defined in the Code ("**Living Wage**"). If the Contractor fails to comply with the requirements of the Living Wage during the term of the Agreement, said failure may result in termination of the Agreement or the pursuit of other remedies by the Board.

ARTICLE IX - DISADVANTAGED BUSINESS ENTERPRISE ("DBE") PROGRAM

In accordance with the adoption of Resolution R231-97, the Sewerage and Water Board of New Orleans has established a race and gender-neutral Disadvantaged Business Enterprise (DBE) Plan. The prime contractor shall be required to make a demonstrated good faith effort to award (7%) percent of the amount of the contract to certified disadvantaged business enterprises as **service providers or suppliers performing commercial useful functions which are consistent with the services or supplies required on this contract.** The percent participation having been determined for this specific contract by recommendation of the **Staff Contract Review Committee (SCRC)**, which is comprised of Sewerage and Water Board staff members. This percentage requirement shall be considered an informality which is subject to modifications and may be waived or adjusted by the Sewerage and Water Board of New Orleans if the prime contractor, after having demonstrated a good faith effort, is unable to comply with the requirement.

DEMONSTRATED GOOD FAITH EFFORTS

Before receiving an award of the contract, the contractor must meet the DBE goals or prove that he/she has made a demonstrated good faith effort. To determine whether a particular contract bidder has made demonstrated good faith efforts to reach the DBE participation goal, the Board and its staff will consider the following:

- a. whether the contractor attended all pre-bid meetings that may have been scheduled by the Board to inform DBE firms of subcontracting opportunities and/or requested the Board Directory of Certified DBE firms;
- b. whether the contractor advertised in general circulation and trade association publications, concerning the DBE subcontracting opportunities, and allowed the subcontractors reasonable time to respond;
- c. whether the contractor provided written notice to a reasonable number of individually named DBE firms and allowed enough time for the DBE firms to participate effectively;
- d. whether the contractor followed up initial solicitations of interest by contacting DBEs to determine with certainty whether the DBEs were interested in bidding;
- e. whether the contractor selected specific portions of the work to be performed by DBEs in order to increase the likelihood of meeting the DBE goals (including breaking down contracts into smaller units to facilitate DBE participation);
- f. whether the contractor provided interested DBEs with adequate information about the plans, specifications and requirements of the contract;
- g. whether the contractor negotiated in "good faith" with interested DBEs and did not reject DBEs as unqualified without sound reasons based on a thorough investigation of their capabilities;
- h. if the contractor did reject a DBE as unqualified, the contractor must state his or her reason for doing so in writing;
- i. whether the contractor has used the services of available community organizations and small and/or disadvantaged business groups; local, state and federal small or disadvantage business assistance offices; and other organizations that aid in the recruitment and placement of DBE firms;
- j. whether the contractor has made enough efforts to negotiate with DBEs for specific sub-bids, including at a minimum:
 - (1) names, addresses, telephone numbers of DBEs that the contractor contacted,
 - (2) a description of information provided to those DBE firms, and
 - (3) a statement of why additional agreements with DBEs were not reached to include but not limited to proof the DBEs' price exceeded that of non-DBEs.

1. Policy:

It is the policy of the Board that DBE firms, as defined in the Board's Disadvantaged Business Enterprise Plan, shall have the maximum allowable opportunity to compete for the award of the participation in the performance of the Board's publicly bid contracts. Consequently, the SCRC and the Board have set the DBE participation goal applicable to this Professional Service and/or Goods and Service contract.

2. DBE Obligation:

The Board and its contractors agree to ensure that DBEs, as defined in the Board's Disadvantaged Business Enterprises Plan, shall have the maximum allowable opportunity to compete for the award of the participation in the performance of contracts and subcontracts provided under this agreement. In this regard, contractors shall take all necessary and reasonable steps in accordance with this DBE Plan to ensure that DBEs have the maximum allowable opportunity to compete for such contracts. The Board and its contractors shall not discriminate based on race, color, national origin, or sex in the award and performance of the Board's publicly bid contracts.

3. Utilization of DBE Vendor Listings:

All bidders are required to utilize the most recent Sewerage and Water Board State-Local Disadvantaged Business Enterprise Program Approved Vendor Listings for **Goods & Services/Professional Services**, in their selection of DBE entities to meet DBE participation goals. **Bidders are required to utilize DBE's as service providers or suppliers only in the areas for which they are certified. A description of the areas of work that DBE's can provide is contained in these vendor listings.** In addition, an alphabetical list of vendors/contractors is provided indicating the name of the company, address, name of owner, telephone number, fax number, the date the company became certified, and a description of the work that these entities are certified to perform. **Companies that are already certified as a DBE cannot fulfill the DBE requirements by listing themselves as the subcontractor to meet the DBE goal. The prime contractor shall select another DBE from the Sewerage and Water Board's Approved Vendor Listing.**

4. Contacting DBE's and Obtaining a Firm Price

All prime contractors/vendors are required to contact DBE's and obtain a firm price before listing the DBE's on the Participation Summary Sheet. As confirmation of established contact, bidder will include with their Participation Summary Sheet submission a signed correspondence from the SLDBE subcontractor on their own letterhead that reaffirms negotiated terms such as scope of work and monetary compensation.

5. Failure to Comply with DBE Bid Specifications:

All bidders for this Board contract are hereby notified that failure to comply with the above DBE specifications may constitute the bid as being non-responsive, and sufficient cause for rejection.

6. Failure to Carry Out DBE Policy:

All bidders, potential contractors, or subcontractors for this Board contract are hereby notified that failure to comply with the DBE policy and DBE obligations, set forth above, shall constitute a breach of contract which may result in termination of the contract or such other remedy as deemed appropriate by the Board, to include excluding bidder from bidding on future Board contracts.

7. Setting Minimum Participation Goals:

The stated minimum percentage DBE participation goal recommended by SCRC and approved by the Board applies to the work of this contract. Bids which are not accompanied by a properly completed Schedule of DBE Participation Summary Sheet showing that at least the percentage goal of the total contract bid price will be subcontracted or otherwise awarded through procurement action to DBEs shall be considered unresponsive, unless:

- a. An affidavit is furnished by the bidder with its bid showing that the DBE goals cannot be met for the following reasons:
 - 1) No DBE firms made offers. Here, it must be shown, documented and demonstrated that good faith efforts (as defined in Part III, D, 2. of the Board's DBE plan) were made by the bidder to obtain the participation of DBE firms and that they did not respond, or
 - 2) The DBE offers made and accepted for subcontract and/or material supplies do not total the stated goal for participation, but total a lesser percentage, and
 - 3) The bidder was unable to obtain DBE further participation, despite his or her demonstrated good faith efforts (as defined in Part III, D, 2 of the Board's DBE Plan) to obtain additional participation by DBE firms.
- b. Each of the assertions made by the bidder must be supported by documentary evidence.

8. Other Clauses Unaffected:

Nothing contained herein shall invalidate, change, annul, release, restrict, or affect the liability on the bonds or insurance given by the contractor, or the time required for completion of the contract.

9. Determination of Efforts to Meet Goals:

Initial determination of bidder efforts to meet the DBE participation goal shall be based on the DBE participation representations submitted with the bid. Bidders shall submit all the forms required herein with their bids, and the DBE office will examine the contents thereof. The Board's DBE Officer may, if deemed advisable, request further information, explanation, or justification from any bidder.

10. Contract Monitoring:

- a. The Board's DBE Office will monitor contractor during the operation of the contract to ensure that the contractor meets all its DBE obligations as specified in the contract bid. The Board's DBE office shall establish rules and regulations, to be approved by the Board, for the ongoing monitoring of contractor compliance.
- b. Disadvantaged Business Enterprise Program Office personnel or their designated representative shall be allowed to conduct periodic monitoring of contractors' compliance with the agreed to Disadvantaged Business Enterprise Program participation requirements. Contractors shall be required to complete and return to the Disadvantaged Business Enterprise Program Office in the time required all requests for information and data relative to the contractors' activities in meeting

the required Disadvantaged Business Enterprise participation goal. Additionally, Disadvantaged Business Enterprise Office personnel or their designated representative shall have access to contractor and subcontractor(s) records pertaining to, but not specifically limited to labor, costs and materials supplied and used on the Board contract, as well as inspection and photocopying of any and all contracts, agreements and correspondence relative to the Disadvantaged Business Enterprise contract participation requirements. Such inspection will be performed during normal business hours and will be conducted in such a fashion so as to minimize interference with production of the contract. Visits may be made to job sites, as well as to administrative offices of the contractor and subcontractor(s) participants. Such inspection and on-site visits may be scheduled with or without prior notice to the contractor or Disadvantaged Business Enterprise subcontractor participant. Contractors' failure to comply with these monitoring requirements may result in termination of the contract or such other remedy as deemed appropriate by Board.

11. Maintaining Records:

Subsequent to the completion of a contract, contractors are required to maintain for three (3) years such records as are necessary to determine compliance with their DBE obligations. During construction, or performance of the DBE obligations, contractors shall submit reports as requested to enable the DBE Office to monitor this compliance.

12. Umbrella Bonding:

On contracts where subcontracting exists and where practicable (i.e., when a substantial risk or financial hardship would not be incurred by the prime contractor), the contractor may use an umbrella bond to encompass the DBE firm.

13. Board Action to Seek Compliance:

The contractor consents to such appropriate actions taken to ensure that prime contractors and subcontractors comply with the DBE provisions, to include but not limited to:

- a. desk audits to review all material, and information concerning the contractor's compliance;
- b. on-site reviews that may include interviews, visits to project locations, and inspection of documents and/or information not available at the desk audit that pertains to the contractor's compliance;
- c. any additional investigation that may be called for by a lack of proper record keeping, failure of the prime contractor to cooperate; failure of DBEs to cooperate; visible evidence unsatisfactory performance; other evidence as may warrant further investigation.

14. Non-Compliance Finding:

The Board staff will make compliance determinations regarding its prime contractors. Documentation of noncompliance will include the specific areas in which the contractors failed to

comply. In these instances, appropriate legal action consistent with the DBE and other contract provisions will be taken.

15. Contractor's Duties

a. Record Keeping

Successful bidders shall establish and maintain records and submit regular reports to the DBE office as required, which will identify and assess progress in achieving DBE subcontract goals and other DBE participation efforts.

b. Failure to Comply with EDBP Participation Requirements

Failure to comply with any of the EDBP requirements of this contract shall constitute a violation of the terms and conditions of this contract and a cause for the termination of the contract at the option of the Board.

Such violations shall include, but not limited to:

Failing to meet the percentage participation requirements as set out in the contract documents.

Failing to use certified EDBP contractors/vendors in performing the scope of work as identified in the contract documents (EDBP participation summary sheet).

Failing to comply with the "monitoring of EDBP requirements" included herein as part of the contract, such as contractors:

Failure to submit quarterly report and any other necessary reports timely and adequately as required by the EDBP Office.

Failure to grant access to contractor/subcontractor records by EDBP Office personnel, and

Failure to allow on-site investigations and visits, etc.

Failing to report the removal or termination of a certified EDBP vendor/subcontractor.

Failing to secure authorization for replacement of certified EDBP subcontractors from the Director of the Economically Disadvantaged Business Program.

In Lieu of termination the Board, through the EDBP Office, may impose the following penalties:

Withhold from the contractor in violation up to 10% of all future payments due to the contractor, until such time as the violations have been corrected.

Withhold from the contractor in violation, all future payments until such time as the violations have been corrected.

c. Subcontract Clause

All bidders and potential contractors must assure the Board that they will include the above clauses in all agreements, which offer further subcontracting opportunities.

d. Contract Award

Bidders are hereby advised that meeting DBE subcontract goals or making a demonstrated good faith effort to meet such goals are conditions of being awarded and maintaining construction, procurement, or professional services contracts by the Board.

e. Restrictions on DBE Subcontracting

No **DBE** subcontractor or vendor selected to perform work as a **DBE** on a Sewerage and Water Board contract will be allowed to subcontract any portion of its work to a Non-Board certified **DBE**, unless the work to be performed is necessary for the execution of the contract and there are no Board certified **DBE's** available to perform such work.

This process will require that each **DBE** participant performing work on a Sewerage and Water Board funded contract submit a request to subcontract out any portion of work deemed necessary for execution of the contract to the Board's **EDBP** office. On a form provided by the **EDBP** office, the **DBE** contractor or vendor will indicate the dollar amount of work to be subcontracted, the specific scope or nature of the work, the percentage of the total amount of work to be performed by the **DBE** subcontractor and vendor, and the entity to whom the work will be subcontracted.

Both prime and **DBE** subcontractors are advised that the failure to comply with these requirements may result in the loss of **DBE** certification and non-compliance by the prime contractor in meeting **DBE** contractual obligations.

f. Changes in DBE Participation

The prime contractor will not be allowed to make changes in DBE participation without submittal of a written request explaining reason, a revised Participation Summary Sheet and approval by the Director of the Economically Disadvantaged Business Program. Failure to comply with these requirements may result in non-compliance by the prime contractor in meeting DBE contractual obligations.

16. POLICY TO ENHANCE THE USE OF DBE VENDORS

All vendors/contractors are encouraged to identify and use S&WB certified **DBE** vendors to the fullest extent possible in major as well as minor purchases of heavy equipment, hardware supplies, etc.

The Sewerage and Water Board has a long-standing commitment to fairness and equal opportunity in hiring and contracting. As such, the workforce of contractors/vendors is encouraged to be representative of a diverse population. Achievement of the full benefits of diversity will only come when an attitude of inclusion is adopted.

The Sewerage and Water Board believes that developing such a policy would be a positive step to increase the dollar value of contracts awarded to **DBE** vendors and subcontractors.

17. ACCESS TO APPROVED VENDOR LISTS

The current listings of Vendors approved by the Sewerage and Water Board are available for use by the bidders on the Sewerage and Water Board external Website, WWW.SWBNO.ORG.

ARTICLE X - NON-DISCRIMINATION

A. Equal Employment Opportunity. In all hiring or employment made possible by, or resulting from this Agreement, the Contractor (1) will not be discriminate against any employee or applicant for employment because of race, sex, color, religion, gender, age, physical or mental disability, national origin, sexual orientation, gender identity, creed, culture, or ancestry, and (2) where applicable, will take affirmative action to ensure that the Contractor's employees are treated during employment without regard to their race, sex, color, religion, gender, age, physical or mental disability, national origin, sexual orientation, gender identity, creed, culture, or ancestry. This requirement shall apply to, but not be limited to the following: employment, upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or termination, rates of pay or other forms of compensation, and selection for training, including apprenticeship. All solicitations or advertisements for employees shall state that all qualified applicants will receive consideration for employment without regard to race, sex, color, religion, gender, age, physical or mental disability, national origin, sexual orientation, gender identity, creed, culture, or ancestry.

B. Non-Discrimination. In the performance of this Agreement, the Contractor will not discriminate on the basis, whether in fact or perception, of a person's race, color, creed, religion, national origin, ancestry, age, sex, gender, sexual orientation, gender identity, domestic partner status, marital status, physical or mental disability, or AIDS- or HIV-status against (1) any employee of the Board working with the Contractor in any of Contractor's operations within Orleans Parish or (2) any person seeking accommodations, advantages, facilities, privileges, services, or membership in all business, social, or other establishments or organizations operated by the Contractor. The Contractor agrees to comply with and abide by all applicable federal, state and local laws relating to non-discrimination, including, without limitation, Title VI of the Civil Rights Act of 1964, Section V of the Rehabilitation Act of 1973, and the Americans with Disabilities Act of 1990.

C. Incorporation into Subcontracts. The Contractor will incorporate the terms and conditions of this Article into all subcontracts, by reference or otherwise, and will require all subcontractors to comply with those provisions.

D. The Board may terminate this Agreement for cause if the Contractor fails to comply with any obligation in this Article, which failure is a material breach of this Agreement.

ARTICLE XI - INDEPENDENT CONTRACTOR

A. Independent Contractor Status. The Contractor is an independent contractor and shall not be deemed an employee, servant, agent, partner, or joint venture of the Board and will not hold itself or any of its employees, subcontractors or agents to be an employee, partner, or agent of the Board.

B. Exclusion of Worker's Compensation Coverage. The Board will not be liable to the Contractor, as an independent contractor as defined in La. R.S. 23:1021(6), for any benefits or coverage as provided by the Workmen's Compensation Law of the State of Louisiana. Under the provisions of La.

R.S. 23:1034, any person employed by the Contractor will not be considered an employee of the Board for the purpose of Worker's Compensation coverage.

C. Exclusion of Unemployment Compensation Coverage. The Contractor, as an independent contractor, is being hired by the Board under this Agreement for hire and defined in La. R.S. 23:1472(E) and neither the Contractor nor anyone employed by it will be considered an employee of the Board for the purpose of unemployment compensation coverage, which coverage same being hereby expressly waived and excluded by the parties, because: (a) the Contractor has been and will be free from any control or direction by the Board over the performance of the services covered by this contract; (b) the services to be performed by the Contractor are outside the normal course and scope of the Board's usual business; and (c) the Contractor has been independently engaged in performing the services required under this Agreement prior to the date of this Agreement.

D. Waiver of Benefits. The Contractor, as an independent contractor, will not receive from the Board any sick and annual leave benefits, medical insurance, life insurance, paid vacations, paid holidays, sick leave, pension, or Social Security for any services rendered to the Board under this Agreement.

ARTICLE XII - NOTICE

A. In General. Except for any routine communication, any notice, demand, communication, or request required or permitted under this Agreement will be given in writing and delivered in person or by certified mail, return receipt requested as follows:

1. To the Sewerage & Water Board of New Orleans:

NAME AND ADDRESS OF THE BOARD DEPARTMENT RESPONSIBLE FOR MONITORING THIS AGREEMENT

&

Sewerage & Water Board of New Orleans

Office of the Special Counsel

New Orleans, LA _____

2. To the Contractor:

NAME AND ADDRESS OF POINT OF CONTACT FOR CONTRACTOR TO RECEIVE NOTICES

B. Effectiveness. Notices are effective when received, except any notice that is not received due to the intended recipient's refusal or avoidance of delivery is deemed received as of the date of the first attempted delivery.

C. Notification of Change. Each party is responsible for notifying the other in writing that references this Agreement of any changes in its address(es) set forth above.

ARTICLE XIII - ADDITIONAL PROVISIONS

A. Amendment. No amendment of or modification to this Agreement shall be valid unless and until executed in writing by the duly authorized representatives of both parties to this Agreement.

B. Assignment. This Agreement and any part of the Contractor's interest in it are not assignable or transferable without the Board's prior written consent.

C. Choice of Law. This Agreement will be construed and enforced in accordance with the laws of the State of Louisiana without regard to its conflict of laws provisions.

D. Conflicting Employment. To ensure that the Contractor's efforts do not conflict with the Board's interests, and in recognition of the Contractor's obligations to the Board, the Contractor will decline any offer of other employment if its performance of this Agreement is likely to be adversely affected by the acceptance of the other employment. The Contractor will promptly notify the Board in writing of its intention to accept the other employment and will disclose all possible effects of the other employment

on the Contractor's performance of this Agreement. The Board will make the final determination whether the Contractor may accept the other employment.

- E. Construction of Agreement.** Neither party will be deemed to have drafted this Agreement. This Agreement has been reviewed by all parties and shall be construed and interpreted according to the ordinary meaning of the words used so as to fairly accomplish the purposes and intentions of all parties. No term of this Agreement shall be construed or resolved in favor of or against the Board or the Contractor on the basis of which party drafted the uncertain or ambiguous language. The headings and captions of this Agreement are provided for convenience only and are not intended to have effect in the construction or interpretation of this Agreement. Where appropriate, the singular includes the plural and neutral words and words of any gender shall include the neutral and other gender.
- F. Entire Agreement.** This Agreement, including all incorporated documents, constitutes the final and complete agreement and understanding between the parties. All prior and contemporaneous agreements and understandings, whether oral or written, are superseded by this Agreement and are without effect to vary or alter any terms or conditions of this Agreement.
- G. Exhibits.** The following exhibits will be and are incorporated into this Agreement:
- H. Jurisdiction.** The Contractor consents and yields to the jurisdiction of the Civil District Court of the Parish of Orleans and formally waives any pleas or exceptions of jurisdiction on account of the residence of the Contractor.
- I. Limitations of the Board's Obligations.** The Board has no obligations not explicitly set forth in this Agreement or any incorporated documents or expressly imposed by law.
- J. No Third-Party Beneficiaries.** This Agreement is entered into for the exclusive benefit of the parties and the parties expressly disclaim any intent to benefit anyone not a party to this Agreement.
- K. Non-Exclusivity.** This Agreement is non-exclusive and the Contractor may provide services to other clients, subject to the Board's approval of any potential conflicts with the performance of this Agreement and the Board may engage the services of others for the provision of some or all of the work to be performed under this Agreement.
- L. Non-Waiver.** The failure of either party to insist upon strict compliance with any provision of this Agreement, to enforce any right or to seek any remedy upon discovery of any default or breach of the other party at such time as the initial discovery of the existence of such noncompliance, right, default or breach shall not affect or constitute a waiver of either party's right to insist upon such compliance, exercise such right or seek such remedy with respect to that default or breach or any prior contemporaneous or subsequent default or breach.
- M. Order of Documents.** In the event of any conflict between the provisions of this Agreement any incorporated documents, the terms and conditions of the documents will apply in this order: The Agreement;
- N. Ownership Interest Disclosure.** The Contractor will provide a sworn affidavit listing all natural or artificial persons with an ownership interest in the Contractor and stating that no other person holds an ownership interest in the Contractor via a counter letter. For the purposes of this provision, an "ownership interest" shall not be deemed to include ownership of stock in a publicly traded corporation or ownership of an interest in a mutual fund or trust that holds an interest in a publicly traded corporation. If the Contractor fails to submit the required affidavits, the Board may, after 30 days' written notice to the Contractor, take such action as may be necessary to cause the suspension of any further payments until such the required affidavits are submitted.
- O. Ownership of Records.** All data collected and all products of work prepared, created or modified by Contractor in the performance of this Agreement, including without limitation any and all notes, tables,

graphs, reports, files, computer programs, source code, documents, records, disks, original drawings or other such material, regardless of form and whether finished or unfinished, but excluding the Contractor's personnel and administrative records and any tools, systems, and information used by the Contractor to perform the services under this Agreement, including computer software (object code and source code), know-how, methodologies, equipment, and processes and any related intellectual property (collectively, "Work Product") will be the exclusive property of Board and the Board will have all right, title and interest in any Work Product, including without limitation the right to secure and maintain any copyright, trademark, or patent of Work Product in the Board's name. No Work Product may be reproduced in any form without the Board's express written consent. The Board may use and distribute any Work Product for any purpose the Board deems appropriate without the Contractor's consent and for no additional consideration to the Contractor.

- P. Prohibition of Financial Interest in Agreement.** No elected official or employee of the Board shall have a financial interest, direct or indirect, in this Agreement. For purposes of this provision, a financial interest held by the spouse, child, or parent of any elected official or employee of the Board shall be deemed to be a financial interest of such elected official or employee of the Board. Any willful violation of this provision, with the expressed or implied knowledge of Contractor, shall render this Agreement voidable by the Board and shall entitle the Board to recover, in addition to any other rights and remedies available to the Board, all monies paid by the Board to Contractor pursuant to this Agreement without regard to Contractor's otherwise satisfactory performance of the Agreement.
- Q. Remedies Cumulative.** No remedy set forth in the Agreement or otherwise conferred upon or reserved to any party shall be considered exclusive of any other remedy available to a party. Rather, each remedy shall be deemed distinct, separate and cumulative and each may be exercised from time to time as often as the occasion may arise or as may be deemed expedient.
- R. Severability.** Should a court of competent jurisdiction find any provision of this Agreement to be unenforceable as written, the unenforceable provision should be reformed, if possible, so that it is enforceable to the maximum extent permitted by law or, if reformation is not possible, the unenforceable provision shall be fully severable and the remaining provisions of the Agreement remain in full force and effect and shall be construed and enforced as if the unenforceable provision was never a part the Agreement.
- S. Subcontractor Reporting.** The Contractor will provide a list of all natural or artificial persons who are retained by the Contractor at the time of the Agreement's execution and who are expected to perform work as subcontractors in connection with the Contractor's work for the Board. For any subcontractor proposed to be retained by the Contractor to perform work on the Agreement with the Board, the Contractor must provide notice to the Board within 30 days of retaining that subcontractor. If the Contractor fails to submit the required lists and notices, the Board may, after thirty 30 days' written notice to the Contractor, take any action it deems necessary, including, without limitation, causing the suspension of any payments, until the required lists and notices are submitted.
- T. Survival of Certain Provisions.** All representations and warranties and all obligations concerning record retention, inspections, audits, ownership, indemnification, payment, remedies, jurisdiction, choice of law, and **IDENTIFY ANY OTHER PROVISIONS THAT SHOULD SURVIVE TERMINATION** shall survive the expiration, suspension, or termination of this Agreement and continue in full force and effect.
- U. Terms Binding.** The terms and conditions of this Agreement are binding on any heirs, successors, transferees, and assigns.

ARTICLE XIV – COUNTERPARTS

This Agreement may be executed in one or more counterparts, each of which shall be deemed to

be an original copy of this Agreement, but all of which, when taken together, shall constitute one and the same agreement.

ARTICLE XV - ELECTRONIC SIGNATURE AND DELIVERY

The Parties agree that a manually signed copy of this Agreement and any other document(s) attached to this Agreement delivered by email shall be deemed to have the same legal effect as delivery of an original signed copy of this Agreement. No legally binding obligation shall be created with respect to a party until such party has delivered or caused to be delivered a manually signed copy of this Agreement.

IN WITNESS WHEREOF, the Board and the Contractor, through their duly authorized representatives, execute this Agreement.

SEWERAGE AND WATER BOARD OF NEW ORLEANS

BY: _____
GHASSAN KORBAN, EXECUTIVE DIRECTOR

Executed on this _____ of _____, 201__

FORM AND LEGALITY APPROVED:
Legal Department

By: _____

Printed Name: _____

NAME OF CONTRACTOR

BY: _____
**NAME AND TITLE OF INDIVIDUAL INDICATED IN PROOF OF SIGNING
AUTHORITY**

FEDERAL TAX I.D. OR SOCIAL SECURITY NO.

**[EXHIBIT(S) XXXX C CONTAINED ON NEXT PAGE(S) *or* ATTACHED SEPARATELY (if too
voluminous)]**

